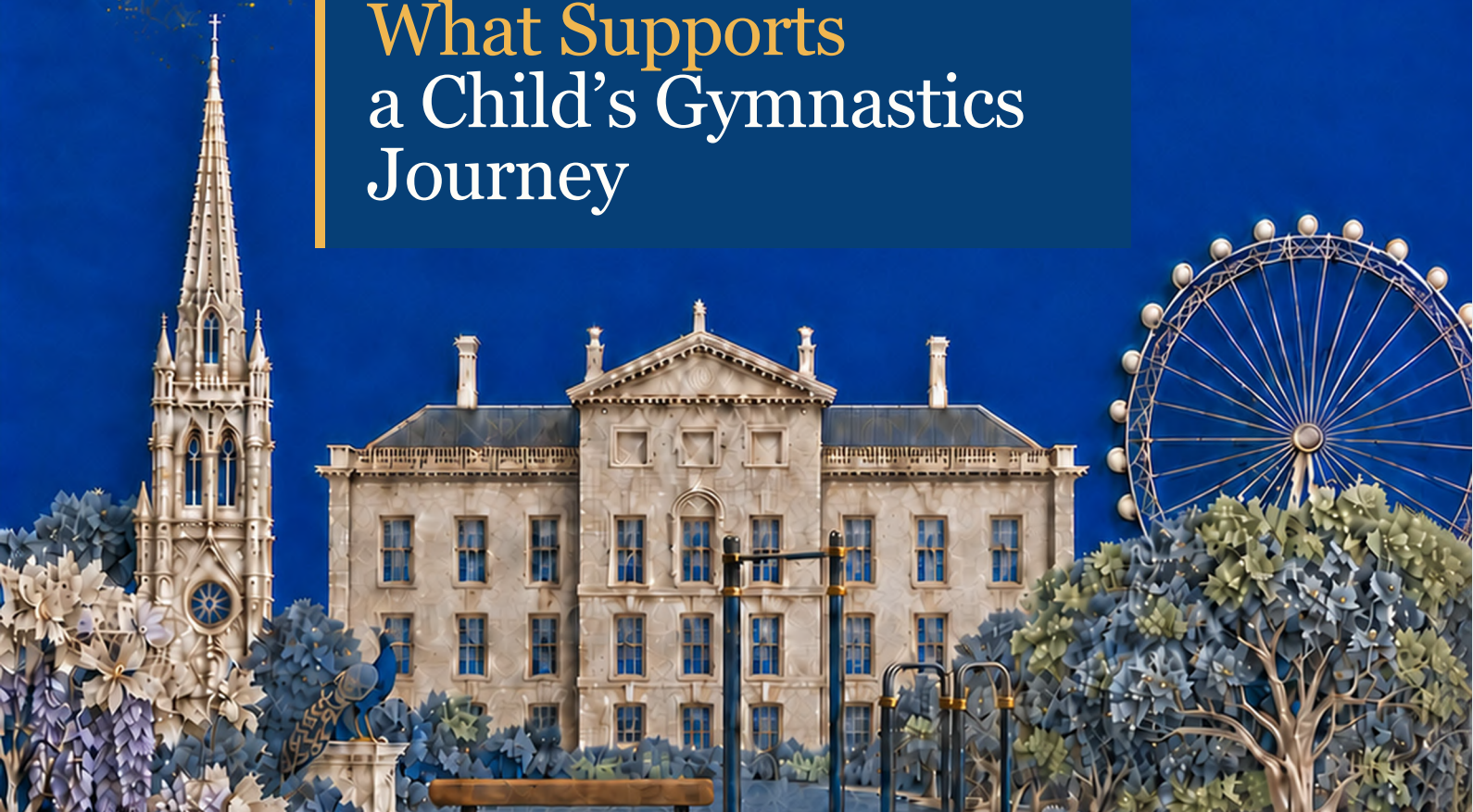


KENSINGTON

GYMNASTICS MAGAZINE



What Supports
a Child's Gymnastics
Journey



FOR YOUNGER READERS

Meet Chelsea

Your gymnastics guide through every issue



CHELSEA · KENSINGTON GYMNASTICS MAGAZINE

Hello! I’m Chelsea.

I am the illustrated gymnast of *Kensington Gymnastics Magazine*. I was created to make important ideas about gymnastics clearer, friendlier and easier for young readers to understand.

WHO CHELSEA IS

Chelsea is an AI-created magazine character—not a real child and not a substitute for your coach. She represents the curiosity, effort and questions of young gymnasts.

Some pages are written mainly for grown-ups. When you see me, I will help bring one of those ideas closer to a gymnast’s world.

In Issue 3, we will discover...

How movement may support attention	How the core organises the body
Why food and protein matter	What sleep does after training
Why balance matters through life	How children find gymnastics
The shapes and words used in class	Why progress is not a race

You do not need to understand everything at once. Read with your family, ask questions, and return to the pages that interest you.

CHELSEA’S MESSAGE

“Gymnastics is not only about the skill everyone can see. It is also about what you learn, notice and understand along the way.”

KENSINGTON GYMNASTICS MAGAZINE

London's Family Gymnastics Guide

ISSUE 3 · MAY 2026

ISSN 2979-1073



Kensington Gymnastics Magazine is an independent educational publication created in London for families, gymnasts, and anyone interested in understanding gymnastics more clearly.

This magazine exists to explain — not to persuade.
To inform — not to promote.

To bring clarity to a sport that is widely admired, often misunderstood, and rarely explained in calm, accessible language.

Each issue explores gymnastics through science, experience, and culture — from children's movement and development, to anatomy, food, lifelong participation, and the world's most important gymnastics events.

Written from London and shaped by life in a global city, this publication reflects a simple belief: movement matters most when it is understood.

EDITOR

Stefan Kolimechkov PhD

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FROM THE EDITOR

ISSUE 3
MAY 2026

Editor's Letter

The most important changes in gymnastics are often the ones that cannot be photographed.

Gymnastics is often judged by what can be seen: the handstand held, the landing controlled, the new skill finally achieved. Yet some of its most important work happens before any of those moments become visible. A child learns to listen, wait, remember, adjust, persist and organise the body. Progress may appear first as greater attention, a calmer response to difficulty or the confidence to try again.

This issue began with a question about that less visible development. What may gymnastics do for the growing brain? The research we examine does not justify dramatic promises, and we should resist language that makes any activity sound like a cure. What it does offer is a careful reason to look more closely at the relationship between structured movement, attention, self-control and learning. It gives families a clearer vocabulary for changes they may already have noticed, while preserving the uncertainty that responsible science requires.

The same principle runs through the rest of the issue. We look beneath the surface. The core is not presented as a collection of visible abdominal muscles, but as a coordinated system that helps the body transmit force and control position. Protein is not treated as a fashionable product or a single number, but as one part of ordinary food, growth and an active child's overall diet. Sleep is not empty time after training. It is part of the process through which a child recovers, learns and returns ready for the next day.

That wider view matters to me personally. I have experienced gymnastics as a young competitor, researcher, coach and masters gymnast. A skill remembered from years ago may still feel familiar while timing, confidence and recovery need rebuilding. Fear is not simply an obstacle; it can also be information. Experience does not remove the need to listen to the body—it makes careful listening more important.

EDITOR'S LETTER

Continued

”

This is why the chapter on lifelong movement belongs beside the chapters about children. Gymnastics should not be understood only as a pathway towards competition. It can be a movement education whose influence changes across a lifetime. Continued practice can help us preserve more capable, confident and independent years.

The London chapters bring the same attention to place. It is easy to speak about access as though a club either exists or does not. Families experience something more complicated: travel, timing, cost, waiting lists, welcome and class suitability all shape whether an opportunity is truly reachable. Our original, dated mapping of London provision is a transparent starting point rather than a permanent verdict. It helps us ask better questions about where gymnastics is found and what practical access means for a family.

“

The most important changes in gymnastics are often the ones that cannot be photographed.

Language shapes access too. Words such as *tuck*, *pike*, *straddle*, *dish* and *arch* can sound obvious inside a gym and unfamiliar outside it. Explaining them gives families a shared point of reference. Our home-practice guidance separates safe repetition from skills that require qualified supervision. The myths chapter reminds us that development is personal, uneven and never well measured by comparison alone.

You will also meet Chelsea, our illustrated gymnast and young-reader guide. She brings selected ideas closer to children without pretending to replace their coach. She listens, asks and reminds young gymnasts that understanding can grow gradually, just as a skill does.

Across all these subjects, our responsibility remains the same: to be clear without becoming simplistic, useful without becoming prescriptive, and confident without asking evidence to answer more than it can. Trust does not come from speaking with the greatest certainty. It comes from helping readers distinguish what is known, suggested, experienced and still to be explored.

I hope this issue helps you notice those less visible changes—and see familiar parts of gymnastics with a little more depth.

COACH · RESEARCHER · MASTERS GYMNAST

EDITOR

Stefan Kolimechkov PhD

EDITORIAL MANIFESTO

Clarity, evidence, and calm understanding

*The principles
behind every
issue we
publish.*

Kensington Gymnastics Magazine exists to make gymnastics understandable.

Created and written in London, this publication reflects the discipline, tradition, and intellectual confidence of the city it serves. Its purpose is to explain gymnastics clearly, thoughtfully, and responsibly — drawing on science, professional experience, and respect for the people who practise it.

We believe that **understanding matters more than instruction, and clarity more than opinion**. Gymnastics is complex by nature, and simplification without explanation often leads to confusion rather than confidence. Our role is not to prescribe, but to illuminate.

Where scientific evidence exists, this magazine draws on it carefully and conservatively. Where evidence is evolving, uncertainty is explained honestly rather than ignored. Where experience matters, it is valued — without exaggeration or urgency.

This magazine is written with patience. Knowledge is built gradually, not rushed. Issue by issue, our aim is to support better conversations around movement, development, and lifelong participation in gymnastics.

CLARITY

Explain before advising.

EVIDENCE

Be careful with certainty.

RESPECT

Put people before claims.

IN THIS ISSUE

In Issue 3, we look beneath visible skills—from the growing brain, core, protein and sleep to balance across life. We also map London access, explore how children begin gymnastics worldwide, explain basic shapes, answer home-practice questions and challenge myths about progress.

FEATURE

What Gymnastics May Do for the Growing Brain

What a new study suggests about self-control, working memory, and flexible thinking in childhood



QUIET CHANGES

Many families notice something in gymnastics before they can fully explain it.

A child who once struggled to wait their turn may begin to settle more calmly. Another may listen more carefully, cope better when something changes, or persist when something feels difficult. These changes are rarely dramatic. They are often quiet, gradual, and easy to miss if we look only for visible skills.

Parents may describe these changes in simple ways:

<i>“She seems more focused.”</i>	<i>“He listens better now.”</i>
<i>“She copes better when something changes.”</i>	<i>“He seems more confident in himself.”</i>

In London, this matters. School, travel, clubs, crowded environments, and frequent transitions ask children to manage attention, patience, and adaptability throughout the day. A well-structured movement activity may therefore support more than physical development alone.

BUILDING ON ISSUE 2

[Issue 2](#) examined an observational study linking coordination and selected executive functions in preadolescent gymnasts. This issue turns to a different question: what happened when preschool children were randomly assigned to a 12-week recreational gymnastics programme?

Zhang and colleagues (2024) did not ask whether gymnastics helps children perform tricks earlier or become more flexible. They asked whether moderate-intensity recreational gymnastics could influence aspects of executive function in young children.^[1]

THE ESSENTIAL IDEA

What is executive function?

Executive function is the name researchers use for a group of mental processes that help children direct attention, hold information in mind, control responses, and adapt when demands change.^[2]

These skills include:

- focusing attention
- remembering instructions
- controlling impulses
- switching between tasks
- staying organised when something changes
- resisting the urge to act too quickly

In everyday family life, executive function is involved when a child waits for their turn, follows a two- or three-step instruction, adjusts when the teacher changes the activity, remembers the shape they are meant to make, or pauses before responding too quickly.

These are not “academic” skills only. They are life skills: part of how children learn, behave, adapt, and participate in the world around them.

Importantly, executive function develops throughout childhood. It is not a single fixed trait.^[2] The Zhang study assessed inhibitory control, working memory, cognitive flexibility, and two delay-of-gratification tasks. It did not directly measure school achievement, general behaviour at home, confidence, or changes to the brain itself.^[1]

Gymnastics is especially interesting here because it combines movement with structure.

RESEARCH IN FOCUS

What did Zhang and colleagues actually study?

Gymnastics combines listening, remembering, sequencing, balancing, controlling effort, adjusting position, and repeating actions with intention. That combination makes it an interesting setting in which to study executive function.

Zhang and colleagues studied 63 children aged approximately five to six in one region of China. Thirty-one children were randomly assigned to recreational gymnastics and 32 to a control group. The gymnastics programme lasted 12 weeks, with 60-minute sessions three times each week.^[1]

Random allocation makes this evidence more informative than a simple observational comparison, although one modest trial cannot provide a final answer.

The Study at a Glance



WHO?
63 Chinese children, aged about 5–6



WHAT?
Recreational gymnastics



HOW LONG?
12 weeks



HOW OFTEN?
60 minutes, three times weekly



RESULT
Outperformed control on most EF tasks

The sessions used group play, rolls, jumping, balance-beam activities, and other gross-motor tasks. This was recreational—not elite—gymnastics, delivered at an intensity the researchers described as moderate.^[1]

The study therefore asks a useful developmental question. It does not tell families that children need serious training, or establish how often a child should attend gymnastics outside this research setting.

THE FINDINGS

What the study found

After twelve weeks, children in the gymnastics group performed better than the control group on most executive-function measures after the intervention.^[1]

In other words, the programme appeared to support aspects of inhibitory control, working memory, and cognitive flexibility over the twelve weeks studied.

That does not mean gymnastics makes children “smarter”. It does not mean every child will become calmer, more attentive, or more academically successful. Those outcomes were not demonstrated by this study.

*The more careful conclusion is that **well-structured recreational gymnastics may support executive-function processes involved in controlling responses, holding information in mind, and adapting to changing demands.***

For families, realistic developmental support is more meaningful than dramatic promises. Improvements in self-control, working memory, or flexible responding can matter in daily life even when they do not appear as visible gymnastics skills.

Why might gymnastics help?

The study measured outcomes rather than mechanisms.^[1] Possible explanations may lie partly in the structured nature of gymnastics, which asks children to coordinate movement and mental control at the same time.

- hold a shape while listening
- stop and start with control
- wait, watch, copy, and try again
- remember a short movement sequence
- balance while adjusting posture
- move carefully rather than impulsively

FROM BODY TO MIND

Movement with intention

Gymnastics is not only physical movement. It is organised movement.

This may be especially important in early childhood, when children are still developing the ability to regulate themselves.^[2] A structured gymnastics class gives repeated opportunities to practise exactly those kinds of skills: noticing, waiting, adjusting, remembering, correcting, and persisting.

That does not make gymnastics the only activity that can help. Other structured physical activities may also support executive function. But gymnastics offers a particularly rich combination of balance, body control, sequencing, and feedback, which makes it a very plausible setting for this kind of developmental support.

What this may mean for children aged 4 to 11

The Zhang study focused on children aged approximately five to six, so we should not stretch its conclusions across the full 4–11 age range. Nor does its schedule establish that three weekly sessions are necessary, that more gymnastics is better, or that a weekly class will produce identical effects.^[1]

However, the broader developmental idea remains highly relevant for the children most KCGA families care about. Children aged 4 to 11 are still learning how to manage their attention, effort, emotions, and responses to challenge. They are still developing the ability to follow instructions well, adapt when tasks change, resist acting too quickly, and stay engaged even when something feels difficult.

Those are exactly the kinds of demands that a good gymnastics programme continues to place on children beyond the preschool years.

So although this specific study does not prove the same effect across the whole primary-school age range, it offers a strong and useful clue: organised recreational gymnastics may support more than physical coordination alone, especially when children are taught in a calm, structured, well-coached environment.

For London families, that matters. A child in Kensington, Chelsea, or Knightsbridge may spend much of the day within highly structured settings: school, travel, routines, queues, transitions, and timetables.

*In city life, movement may do more than help a child burn energy. It may help the child become **more organised within themselves.***

EVERYDAY CHANGES

That is one reason gymnastics often fits city life so well. It does not depend on chaos. It depends on structure, repetition, attention, and patient progress.

What families may notice in real life

Families should not expect a sudden transformation. The study assessed change after 12 weeks; it did not track how changes emerged week by week.^[1]

What Families May Notice Over Time

Every child develops at their own pace, but regular gymnastics may accompany positive changes beyond physical skills.

- 1

Listens more carefully
- 2

Waits more patiently
- 3

Follows instructions better
- 4

Responds more calmly to correction
- 5

Feels more confident
- 6

Keeps trying when something is difficult

These are examples families may observe over time. They were not all outcomes measured in the Zhang study, and every child develops differently.

These changes are easy to underestimate because they are not as obvious as a cartwheel or a handstand. But in childhood development, they may matter more.

A child who is learning how to manage themselves is building foundations that influence school, friendships, confidence, and participation in many areas of life.

This is one of the most valuable things gymnastics may offer: not merely visible skill, but organised growth underneath visible skill.

What the study does not prove

RESPONSIBLE INTERPRETATION

One study does not prove that gymnastics is a cure for attention problems, behavioural challenges, or learning difficulties. It does not prove that every child will benefit in the same way, that more gymnastics is always better, or that gymnastics is superior to every other well-designed activity.

THE WIDER LESSON

IMPORTANT STUDY BOUNDARIES

- A modest sample of 63 children
- One specific regional and cultural setting
- No brain imaging or direct neural measures
- Children aged approximately 5–6
- No long-term follow-up
- Exercise intensity sampled from five children per class^[1]

Why this fits the philosophy of children's gymnastics

Good magazines, like good research, should be careful. This study does not justify dramatic promises. Its value is that it offers scientific language for something many families and coaches already sense, while reinforcing a view of gymnastics that is educational rather than performative.

If gymnastics helps support attention, self-control, and organised behaviour, then its value is not limited to competition, medals, or visible tricks. It becomes part of a child's wider movement education.

This is especially important because many parents still underestimate what beginners' gymnastics really is. They may assume early classes are just about burning energy, learning rolls, or becoming bendy. But in reality, good gymnastics classes teach children to organise themselves: physically, mentally, and emotionally.

They teach children to:

- listen before moving
- repeat with purpose
- persist without panic
- control effort
- respond to feedback
- stay engaged through manageable challenge

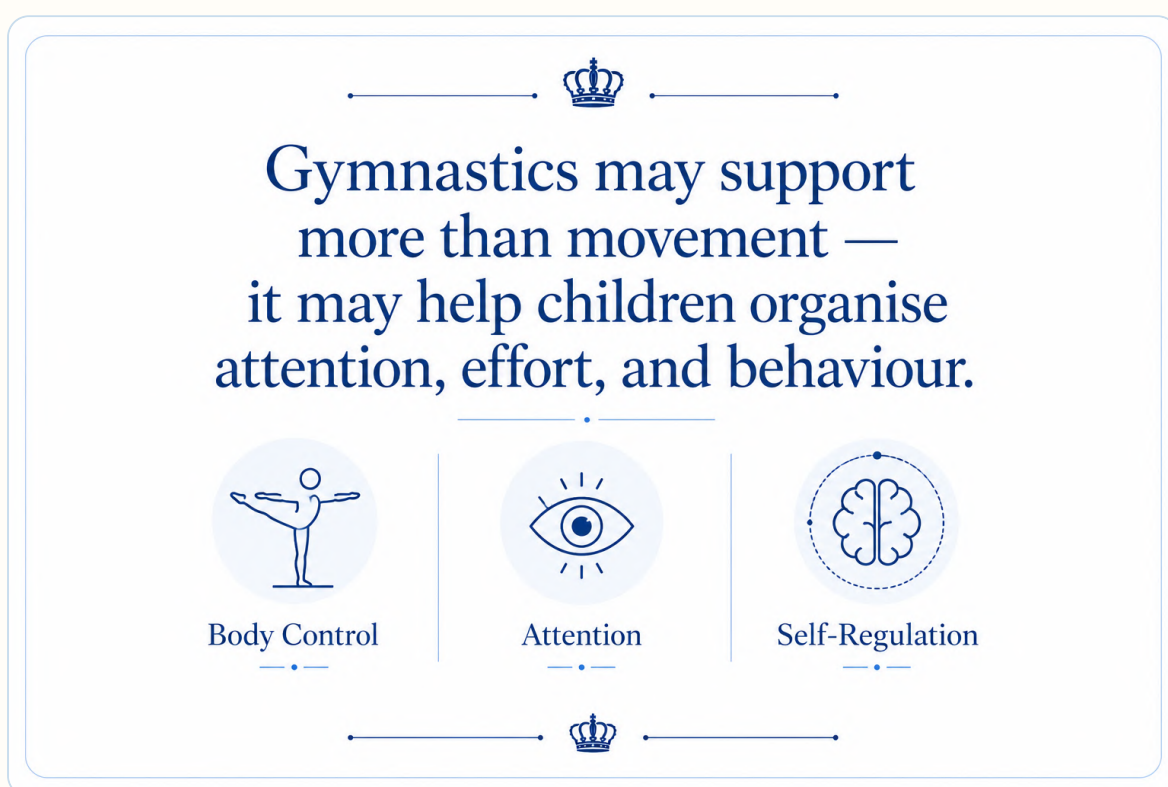
*The visible skill is only one part of the lesson. **The deeper lesson is organisation.***

THE CONCLUSION

What London families can take from this

The most useful conclusion is not that gymnastics “boosts the brain”. That would be too simplistic.

A better conclusion is this: well-structured recreational gymnastics may support the development of important mental skills in childhood, especially those linked to attention, self-control, and organised behaviour.^[1]



The potential value of organised movement extends beyond physical skill alone.

For London families, the value of gymnastics may be broader than it first appears. A child does not need to be advanced, competitive, or unusually talented to benefit. They may be gaining something quieter, but more fundamental: the ability to manage attention, respond to challenge, and organise themselves with greater confidence.

In childhood, that is no small thing.

REFERENCES

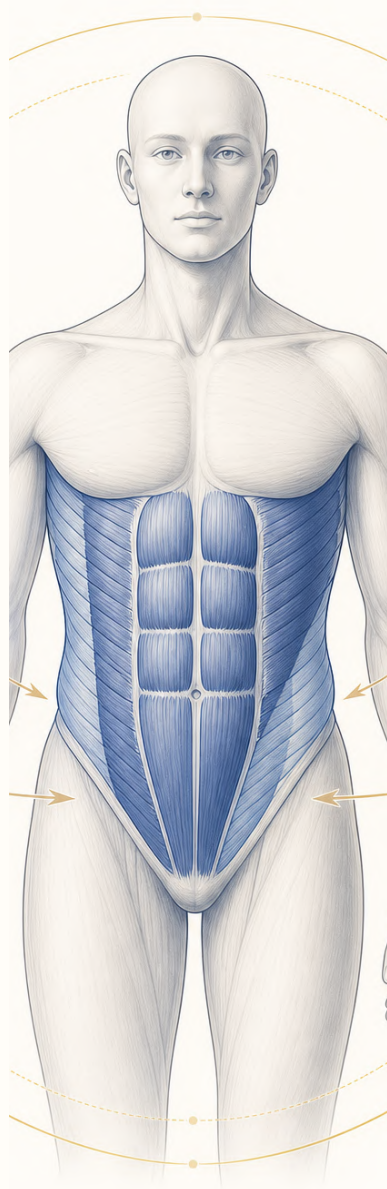
1. Zhang, J., Lu, J., Sun, Y., & Li, J. (2024). Recreational gymnastics exercise of moderate intensity enhances executive function in Chinese preschoolers: A randomized controlled trial. *PsyCh Journal*, 13(6), 954–965. <https://doi.org/10.1002/pchj.786>
2. Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, 64, 135–168. <https://doi.org/10.1146/annurev-psych-113011-143750>

Foundations

Gymnastics Anatomy

The Core: How the Trunk Organises Gymnastics Movement

Understanding the muscles that help children hold shape, transfer force, and control movement



When families hear the word *core*, they often picture the muscles at the front of the abdomen.

They may think of sit-ups, a flat stomach, or the visible outline sometimes called a “six-pack”. None of these gives us a complete picture of what trunk control means in gymnastics.

The core is not one muscle or a particular appearance. Nor is it a permanent instruction to hold the stomach tight. It is better understood as a changing system around the trunk that helps the body organise itself while the arms and legs move.^[1]

Sometimes the trunk must resist movement; sometimes it must create it. Most often, it must move between these roles in a carefully timed sequence.

Issue 1 · The upper arm and shoulder introduced pushing, pulling and positioning the arm.

Issue 2 · The shoulder blade and rotator cuff revealed deeper organisation during support and overhead movement.

Issue 3 · The trunk shows how upper- and lower-body movement becomes connected.

THE MOVING CENTRE

Organisation changes with the task

That organisation matters throughout gymnastics.

A child may be hanging from a bar, supporting their weight through their hands, balancing on one leg, changing from a hollow shape into an arch, or preparing to land. The task changes, and the muscular response changes with it.

Strong arms do not work in isolation, and neither do strong legs. Gymnastics becomes more coordinated when the trunk helps connect them.

This chapter continues the anatomical journey begun in Issues 1 and 2. We started with the upper arm and shoulder, then moved deeper to the shoulder blade and rotator cuff. Now we arrive at the body's moving centre: the region that links the shoulder system above with the hips and legs below.

A simple way to picture it

The trunk is not a concrete column, and stability does not mean keeping it motionless. It is more like an adjustable centre: organised enough to connect the body, responsive enough to change.

Breathing belongs to the system

The diaphragm is primarily a breathing muscle, but breathing and trunk control cannot be separated completely. Changes in breathing, abdominal-muscle activity and pressure inside the abdomen occur together during physical effort. ^[2]

This does not mean children should be taught complicated breathing rules for ordinary gymnastics. It means that useful control must allow breathing to continue. A child who is holding their breath and becoming increasingly rigid is not necessarily showing better stability.

THE SYSTEM

What do we mean by “the core”?

There is no single boundary around the core that every textbook, clinician and coach defines in exactly the same way.

For this family-facing anatomy series, we use the term to describe the muscles and related structures that surround and control the trunk. These include the abdominal wall at the front and sides, muscles along the back, the diaphragm above, the pelvic floor below, and muscles connecting the trunk with the pelvis and hips.

In this issue, we will concentrate on four parts of that wider system:

- rectus abdominis
- transversus abdominis
- the internal and external obliques
- erector spinae

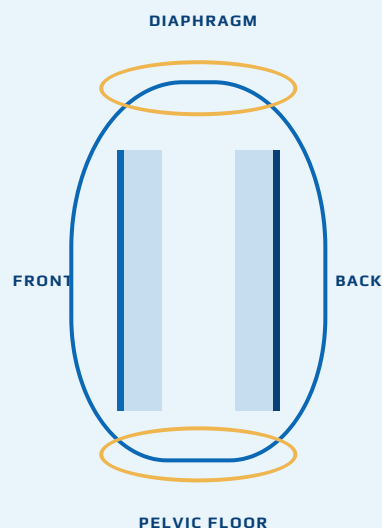
These muscles have different positions and anatomical actions, but the nervous system does not use them as four separate buttons. It coordinates combinations of muscles according to the task.

Biomechanical research examining lumbar-spine stability supports this systems view. Different tasks require different patterns of muscular activity, and no single trunk muscle has been identified as the most important stabiliser in every situation. ^[3]

This distinction protects us from two common mistakes: reducing the core to the muscles visible at the front of the abdomen, and assuming that more tension is always better.

Useful trunk control is adaptable. The body must create enough stiffness for the task while remaining able to breathe, change shape, absorb force and move when movement is required.

An adjustable centre



Front

Back

Sides

Breathing

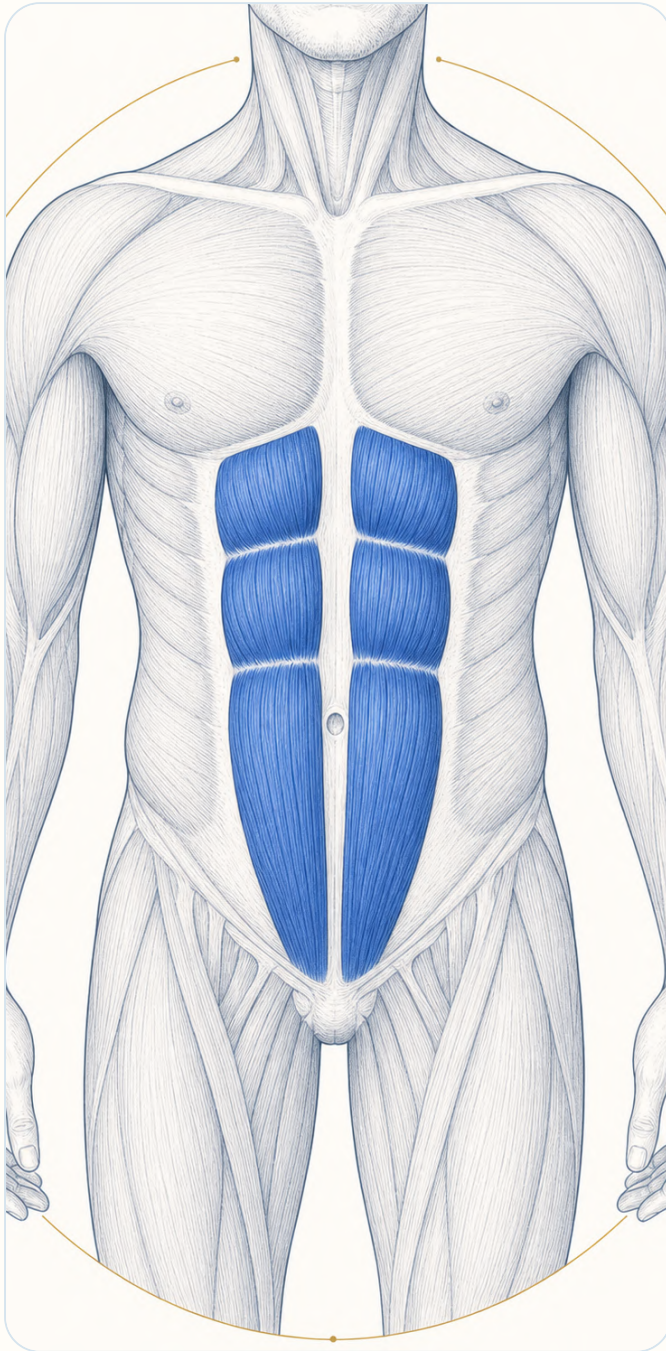
A teaching model, not a literal boundary: the trunk system adjusts continuously to the task.

PARENT TAKEAWAY

A strong-looking abdomen and a well-coordinated trunk are not the same thing. In children's gymnastics, control is seen in movement quality—not in a particular body shape or appearance.

MUSCLE SPOTLIGHT

Rectus Abdominis



The paired vertical muscle at the front of the abdomen. Illustration is simplified for family education.

Where it sits

The rectus abdominis consists of two long bands running vertically down the front of the abdomen, from the lower ribcage and sternum towards the pelvis.

Bands of connective tissue divide the muscle into sections. In some people these divisions become visible through the skin, creating the familiar “six-pack” appearance.

Whether these divisions are visible is influenced by many factors and tells us very little about how well a child organises movement.

What it does

The rectus abdominis contributes to bending the trunk forwards. It can also help control the opposite movement: as the body extends or arches, the muscle may regulate how far and how quickly that movement occurs.

Through these actions, it contributes to the changing relationship between the ribcage and pelvis.

READ THE IMAGE CAREFULLY

The highlighted muscle is only one part of the abdominal wall. Visibility, shape and definition at the surface are not measures of coordination.

MUSCLE SPOTLIGHT · CONTINUED

From anatomy to movement

In gymnastics

The rectus abdominis contributes when a child:

- creates or maintains a rounded hollow-body shape
- controls the tendency to over-arch during support
- links the ribcage and pelvis during a change of body position
- manages the trunk while the legs move away from the body

This does not mean that the rectus abdominis works alone in any of these positions. The obliques, deeper abdominal wall, back muscles, hip muscles and breathing system all contribute.

Common misunderstanding

“The rectus abdominis is the core.”

It is part of the core, but not the whole system. Training or observing one visible muscle cannot tell us how the trunk will respond during a complex gymnastics task.

MOVEMENT LENS

When trunk control is still developing, a child may lose the relationship between the ribs and pelvis as the arms or legs move. The body may arch, twist or change shape earlier than intended.

This does not automatically mean the child is weak, and it is not a failure. It may simply reflect the coordination demands of a new task.

PARENT TAKEAWAY

The aim is not to make a child's stomach look tight. It is to help the trunk remain connected while the rest of the body moves.

MUSCLE SPOTLIGHT

Transversus Abdominis

Where it sits

Transversus abdominis is the deepest of the broad muscles in the anterolateral abdominal wall. Its fibres run mainly around the trunk rather than vertically.

Because it lies beneath the obliques, it cannot be judged by looking at the surface of the abdomen.

What it does

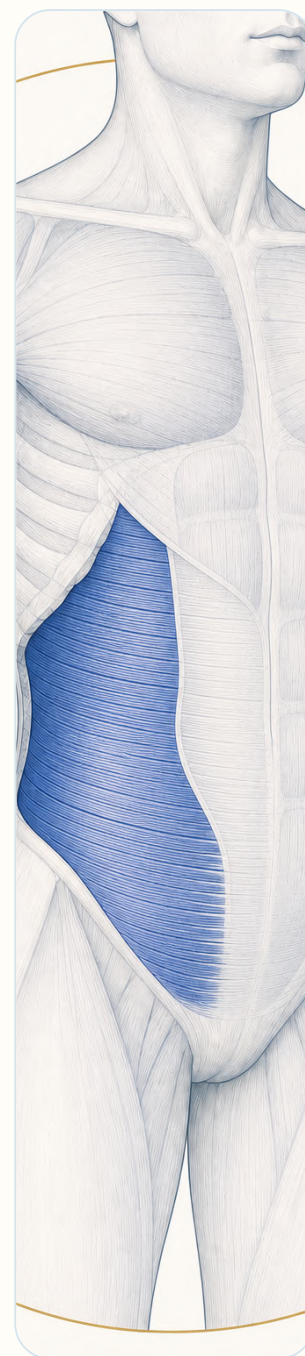
It compresses the abdominal contents and contributes to regulating pressure within the abdomen. Through its attachments and coordination with other muscles, it contributes to trunk control. ^[2]

In one influential laboratory study of adults, transversus abdominis activity began in anticipation of rapid arm movement. This offers an example of the nervous system preparing the trunk before a limb moves. ^[4]

The finding should not be interpreted as proof that one deep muscle controls every movement, or that children need to contract it consciously before performing gymnastics.

EVIDENCE BOUNDARY

This adult laboratory finding helps explain a biological principle. It does not prescribe a cue for children and does not establish one muscle as the controller of every task.



A simplified cutaway: the deep horizontal muscle fibres remain lateral and transition medially into an aponeurotic sheet contributing to the rectus sheath.

MUSCLE SPOTLIGHT · CONTINUED

Deep does not mean dominant

In gymnastics

The transversus abdominis contributes as part of the wider trunk system when a child:

- prepares for movement of the arms or legs
- maintains body shape while the base of support changes
- manages pressure and trunk position during effort
- connects breathing with controlled movement

Common misunderstanding

“Children should pull their stomach in and hold it there.”

Trunk control is not the same as continuously drawing the abdomen inward. Children need to breathe, respond and change muscular effort according to the task.

Holding one cue permanently may make movement rigid and distract from the wider shape or action being learned.

MOVEMENT LENS

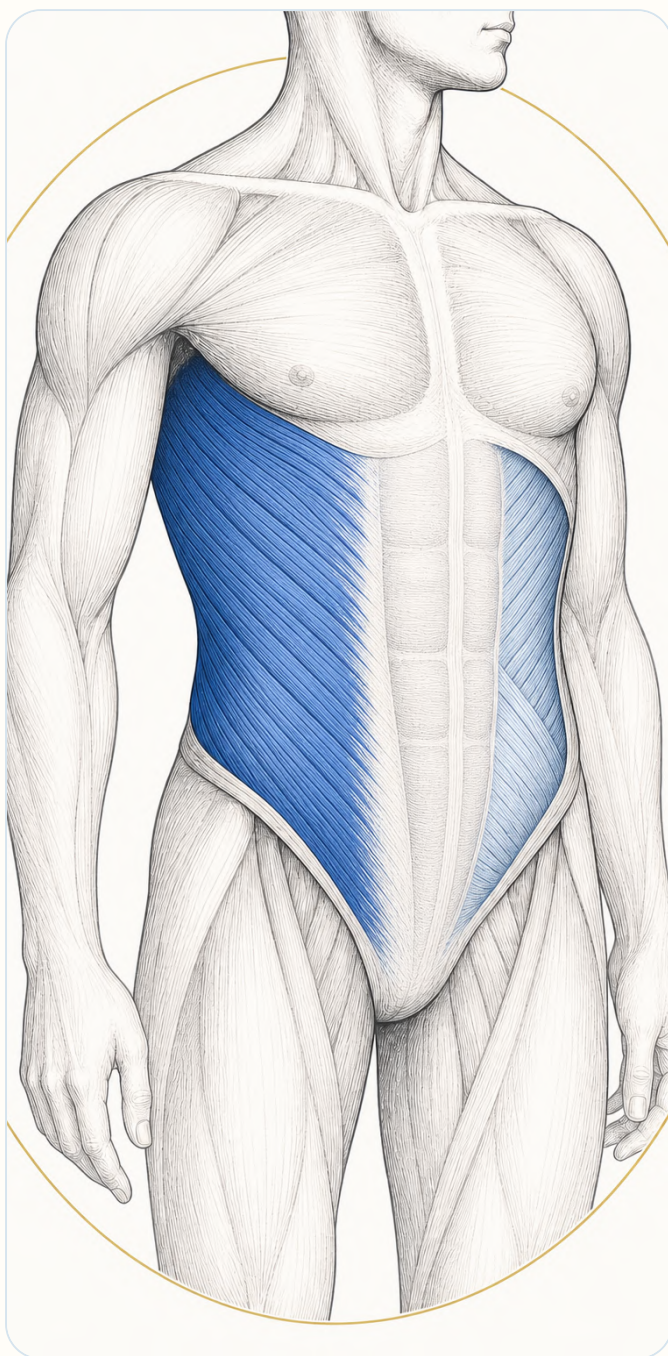
Deep muscles are sometimes described as if they stabilise quietly while larger muscles produce movement. The division is not so simple. Deep and superficial muscles cooperate, and their contribution changes with position, load, speed and experience.

PARENT TAKEAWAY

The deepest muscle is not automatically the most important muscle. Good trunk control comes from coordination across the system.

MUSCLE SPOTLIGHT

Internal & External Obliques



A teaching cutaway: external oblique is shown in royal blue; the deeper internal-oblique layer is shown in pale blue, integrated within the natural contours of the abdominal wall.

Where they sit

The obliques form broad layers along the sides of the abdomen.

The external oblique is the more superficial layer. Its fibres run diagonally downwards and forwards.

The internal oblique lies underneath. Much of its fibre direction runs diagonally upwards and forwards.

Together with transversus abdominis and rectus abdominis, these muscles form the abdominal wall.

What they do

- rotate the trunk
- bend the trunk sideways
- control rotation created by other parts of the body
- manage the relationship between ribcage and pelvis
- compress the abdomen and support trunk stiffness when required

The left and right sides can work in different combinations—particularly when a task is asymmetrical.

MUSCLE SPOTLIGHT · CONTINUED

Controlling rotation

In gymnastics

The obliques contribute when a child:

- resists unwanted twisting in a straight or hollow shape
- turns the trunk deliberately
- controls the body during one-sided support
- keeps the chest and pelvis connected as one leg or arm moves differently from the other
- manages transitions into and out of rotational movement

Common misunderstanding

“If the body is not visibly turning, the obliques are not working.”

Muscles can produce movement, but they can also control or resist it. During a balanced shape, the obliques may contribute precisely because the trunk is not twisting.

MOVEMENT LENS

Asymmetrical tasks reveal how much organisation gymnastics requires. When one arm reaches, one leg lifts, or weight shifts to one side, the trunk must adapt without becoming unnecessarily rigid.

What families see may be simple: a shape looks calmer, and the movement arrives closer to where the child intended.

PARENT TAKEAWAY

Side muscles are not only for side-bending. They help children control rotation and remain organised when movement is uneven from one side to the other.

MUSCLE SPOTLIGHT

Erector Spinae

Where it sits

Erector spinae is the collective name for long columns of muscle running along the back of the spine. The group extends through the lumbar and thoracic regions and continues towards the neck.

It is not one small muscle but a group with different attachments and contributions along the spine.

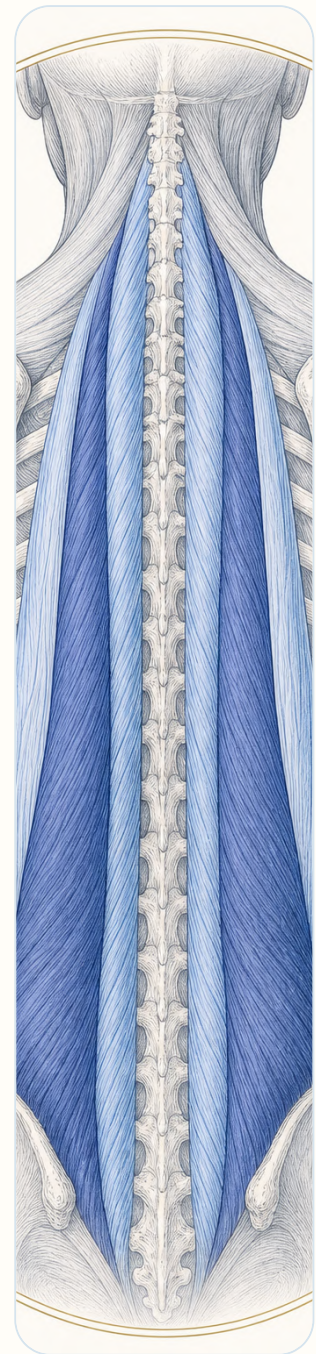
What it does

When both sides work together, they contribute to extending the trunk. When one side contributes more, they can assist side-bending and control rotation.

The erector spinae can also work without producing obvious movement. This is called an *isometric* action: the muscles produce force while helping the trunk maintain position against gravity or another external force.

A MUSCLE GROUP

The teaching plate distinguishes spinalis, longissimus and iliocostalis. Their precise contours and attachments change across spinal regions.



A simplified posterior teaching view of the paired spinalis, longissimus and iliocostalis columns. Their precise contours vary by spinal region.

MUSCLE SPOTLIGHT · CONTINUED

The back is part of the core

In gymnastics

The erector spinae contribute when a child:

- creates and controls an arch shape
- returns from a flexed position
- keeps the trunk organised in upright balance
- controls the body during landing and deceleration
- connects the upper back, lower back and pelvis during transitions

Common misunderstanding

“The abdominal muscles hold the body in, while the back muscles pull it out.”

Flexors and extensors are sometimes presented as opposing teams. In living movement, they often work at the same time.

This shared activity—often called *co-activation*—can increase trunk stiffness when stability is required. The amount and pattern still need to match the task. Too much tension may make movement less efficient, while too little control may allow the body to lose its intended shape.

MOVEMENT LENS

A gymnastics arch is not simply “bending the lower back as far as possible”. Well-organised extension is distributed through the body and controlled by many regions.

This is why flexibility alone does not create a high-quality shape.

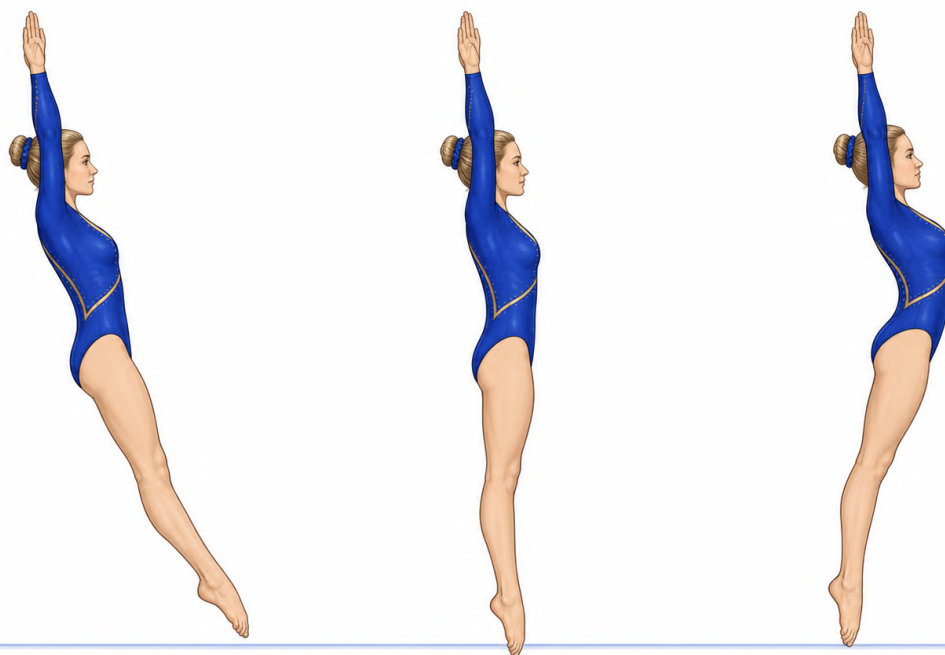
PARENT TAKEAWAY

Back muscles are part of the core. They do not work separately from the abdominals; together, these systems help the trunk move and resist movement.

MOVEMENT LENS

Hollow, Straight & Arch

Gymnastics uses recognisable body shapes, but the muscular activity inside them is not fixed.



Hollow

Front and side muscles contribute to a more flexed relationship between ribcage and pelvis. Posterior and hip muscles continue to contribute according to the task.

Straight

A straight shape is not passive. Shoulders, trunk, pelvis and legs organise the intended line, with small adjustments continuing even when it looks still.

Arch

Back muscles contribute to extension while the abdominal wall helps regulate it. Movement should be distributed rather than forced into one spinal region.

A useful core is adaptable. Gymnastics asks the trunk to organise many positions—and to change between them with control.

MOVEMENT LENS · CONTINUED

What changes between shapes?

The muscular activity inside a recognisable gymnastics shape is not fixed.

In a hollow shape, muscles at the front and sides of the trunk contribute to a more flexed relationship between the ribcage and pelvis. The back of the body does not simply switch off: posterior and hip muscles continue to contribute according to the position and task.

In a straight shape, the body must organise the shoulders, trunk, pelvis and legs so the intended line can be maintained against gravity or another force. Small adjustments continue even when the position appears still.

In an arch shape, muscles along the back contribute to extension while the abdominal wall helps regulate the movement. A well-organised shape distributes movement through the body rather than forcing it into one region of the spine.

From one shape to another, the body adjusts:

- the direction of muscular force
- the amount of stiffness required
- the relationship between the ribcage and pelvis
- the position of the arms and legs
- the balance demands
- the contribution of breathing

The same child may organise one shape more easily than another. That is normal: coordination develops through experience, appropriate progressions and time.

A useful core is adaptable.

Gymnastics does not ask the trunk to remain rigid in one position. It asks the trunk to organise many positions and to change between them with control.

FOR FAMILIES

What families may notice over time

Trunk control does not always appear as a dramatic new skill.

Body shapes look calmer.

Ribs and pelvis appear more connected.

The child twists less when the task is intended to be straight.

Transitions between shapes become smoother.

Landings look more organised.

Arms and legs move without the centre losing position as quickly.

These are observations, not diagnostic tests.

A child who arches, bends, rotates or loses balance is not necessarily showing that something is medically wrong. They may be learning, growing, tired, responding to a new task, or working with strength and coordination that are still developing.

Good coaching responds by adjusting the task, support, duration or progression. It does not treat every change of shape as a fault to be forced away.

For London families moving between school, travel and evening activities, this matters. Children do not arrive at every session with identical energy, attention or readiness. Movement quality can vary from day to day without erasing the progress already made.

LOOK FOR ORGANISATION, NOT TENSION

Useful control allows a child to breathe, respond and adjust. More visible effort does not always mean better stability.

PARENT TAKEAWAY

The clearest sign of developing trunk control is not a child holding more tension. It is a child becoming better able to organise the right amount of effort for the movement in front of them.

RESEARCH CONTEXT

What the science allows us to say

Research supports the principle that trunk stability depends on coordinated muscular activity that changes with the task. ^[1]

Laboratory studies of rapid limb movement have demonstrated anticipatory activity in parts of the abdominal wall. ^[4] Biomechanical work has also shown that many trunk muscles can contribute to spinal stability; no single muscle has a universal claim to being the most important. ^[3]

Research involving trained young and adult gymnasts adds another useful observation: muscular activation during a handstand differed according to the apparatus and support conditions. A handstand on the floor, parallel bars and rings does not present the nervous system with exactly the same problem. ^[5]

This supports an important educational message. The body does not carry one fixed muscular programme into every task. It selects and adjusts a response.

What the evidence does **not** allow us to say is that one isolated exercise, one muscle cue or one type of core training guarantees better gymnastics or prevents injury. ^{[6] [7]}

A systematic review of core-training research found limited and mixed evidence for direct improvements in sporting performance. Integrated training may transfer more readily than isolated trunk work, but the studies vary widely in their participants, methods and outcomes. ^[6]

For children in recreational gymnastics, the responsible conclusion is therefore modest:

Trunk control is an important part of organised movement. Well-structured gymnastics gives children repeated, supervised opportunities to practise that organisation.

That is valuable without turning the core into a cure-all.

FOR FAMILIES

Safety and health notices

This chapter is educational and is not a home exercise programme, a diagnostic tool or individual medical advice.

Gymnastics positions involving inversion, impact, hanging or weight-bearing through the arms should be taught with qualified supervision, appropriate equipment and progressions suited to the child's age, experience and readiness.

Children should not be instructed to hold their breath, pull the abdomen inward continuously, force the lower back flat, or work through pain in order to appear “strong”.

Stop the activity if pain occurs. Seek advice from an appropriate healthcare professional when pain is persistent, severe or worsening, follows a significant injury, disturbs normal daily activity, or is accompanied by weakness, altered sensation or other concerning symptoms.

SAFETY NOTICE

Gymnastics skills should not be practised unsupervised. Many skills require qualified coaching, appropriate equipment, and a safe training environment. If you are unsure, focus on fundamentals and seek guidance from a qualified coach.

HEALTH NOTICE

This content is general information and not medical advice. For pain, injury, or health concerns, consult an appropriate healthcare professional.

RESEARCH CONTEXT

References

References are numbered in order of first appearance. Several foundational studies involved adults, laboratory tasks or trained athletes rather than young recreational gymnasts. They help explain biological principles but should not be treated as direct proof of a particular outcome for every child.

1. McGill, S. M., Grenier, S., Kavcic, N., & Cholewicki, J. (2003). Coordination of muscle activity to assure stability of the lumbar spine. *Journal of Electromyography and Kinesiology*, 13(4), 353–359. [https://doi.org/10.1016/S1050-6411\(03\)00043-9](https://doi.org/10.1016/S1050-6411(03)00043-9)
2. Cresswell, A. G., Grundström, H., & Thorstensson, A. (1992). Observations on intra-abdominal pressure and patterns of abdominal intra-muscular activity in man. *Acta Physiologica Scandinavica*, 144(4), 409–418. <https://doi.org/10.1111/j.1748-1716.1992.tb09314.x>
3. Cholewicki, J., & VanVliet, J. J. IV. (2002). Relative contribution of trunk muscles to the stability of the lumbar spine during isometric exertions. *Clinical Biomechanics*, 17(2), 99–105. [https://doi.org/10.1016/S0268-0033\(01\)00118-8](https://doi.org/10.1016/S0268-0033(01)00118-8)
4. Hodges, P. W., & Richardson, C. A. (1997). Feedforward contraction of transversus abdominis is not influenced by the direction of arm movement. *Experimental Brain Research*, 114(2), 362–370. <https://doi.org/10.1007/PL00005644>
5. Kochanowicz, A., Niespodziński, B., Mieszkowski, J., Marina, M., Kochanowicz, K., & Zasada, M. (2019). Changes in the muscle activity of gymnasts during a handstand on various apparatus. *Journal of Strength and Conditioning Research*, 33(6), 1609–1618. <https://doi.org/10.1519/JSC.0000000000002124>
6. Reed, C. A., Ford, K. R., Myer, G. D., & Hewett, T. E. (2012). The effects of isolated and integrated “core stability” training on athletic performance measures: A systematic review. *Sports Medicine*, 42(8), 697–706. <https://doi.org/10.2165/11633450-000000000-00000>
7. Behm, D. G., Drinkwater, E. J., Willardson, J. M., & Cowley, P. M. (2010). Canadian Society for Exercise Physiology position stand: The use of instability to train the core in athletic and nonathletic conditioning. *Applied Physiology, Nutrition, and Metabolism*, 35(1), 109–112. <https://doi.org/10.1139/H09-128>

Foundations

Food, Growth & Gymnastics

Protein: Building the Growing Body

Why children need protein for growth and repair — and why ordinary family food is usually enough

YOGHURT

EGGS

LENTILS

FISH

TOFU

GRAINS

CHELSEA EXPLAINS

“Protein helps my whole growing body build and renew itself — not only my muscles.”

ORDINARY FOOD SUPPORTS

GROWTH RENEWAL RECOVERY

When families think about sport and food, protein is often the first nutrient that comes to mind.

It appears on yoghurt pots, snack bars and breakfast cereals. It is discussed in gyms, promoted on social media and sold in powders, shakes and products designed to look scientific.

For a growing child, however, the picture is more interesting — and much less dramatic.

Protein is essential. Children need it to grow, renew tissues and produce many of the working substances that keep the body functioning. But protein is not a shortcut to strength, and it does not work alone.

For most healthy primary school-aged children in London, the practical question is not how to add a sports supplement. It is how ordinary family food can support a growing body across school, travel, gymnastics and home life.

- Issue 1** · Children are not small adults. Food supports growth, learning and movement.
- Issue 2** · Carbohydrate provides energy for the brain, school and gymnastics.
- Issue 3** · Protein helps build and renew the growing body.

THE WHOLE DIET

No nutrient works alone

In Issue 2, we looked at carbohydrate: the body's main source of readily available energy.

That energy matters here. Building and renewing tissue requires energy. If a child is not eating enough overall, adding more protein does not automatically solve the problem.

Carbohydrate helps provide energy for school, play and gymnastics. Protein provides amino acids that the body uses to make its own proteins. Dietary fat, vitamins and minerals support other essential parts of growth and health.

No nutrient replaces another.

The useful question is not, "Which nutrient is best?" It is, "How do the different parts of food work together to support a growing child?"

Growth comes before performance

Food must support the whole child, not only the hour they spend in gymnastics. A child also needs enough total energy, sleep, appropriate activity and time.

Protein cannot teach technique. It cannot replace recovery. It cannot make an inappropriate training demand suitable for a growing child.

This broader view protects families from an idea that is common in adult fitness culture: that progress can be reduced to maximising one nutrient.

SERIES PRINCIPLE

Growth comes before performance. The whole pattern of food matters more than any single nutrient.

INSIDE THE BODY

From food to amino acids

Protein is one of the major nutrients in food, alongside carbohydrate and fat.

When a child eats protein, digestion breaks it into smaller components called amino acids. These amino acids are absorbed and become available for the body to use.

Amino acids are sometimes described as “building blocks”. The comparison is helpful, provided we remember that the body is not a simple wall being made taller.

It is a living system that is constantly building, dismantling, repairing and reorganising.

Essential amino acids

The body can make some amino acids for itself. Others must come from food. These are called essential amino acids.

Different foods contain different amounts and patterns of amino acids. Families do not usually need to match individual amino acids at every meal. A varied eating pattern across the day can provide the mixture the body needs.

Protein is dismantled and rebuilt



Muscle &
connective tissue

Skin, blood &
organs

Enzymes & body
systems

A simplified teaching diagram. Amino acids participate in many processes; muscle is only one destination.

THE IMPORTANT DISTINCTION

Saying “protein builds muscle” is true, but incomplete. Protein helps build and renew the whole growing body.

FAMILY PERSPECTIVE

Variety matters more than nutritional perfection.

A LIVING SYSTEM

Growth is happening all the time

Children do not grow only when they are visibly becoming taller.

Throughout childhood, tissues are being renewed. Bones are developing, organs are maturing, blood cells are being produced and the nervous system is changing. Existing proteins are continually broken down and replaced.

This process is called **protein turnover**.



The word “turnover” may sound wasteful, but it is part of how a living body adapts. Old or damaged proteins can be dismantled. Their components may be reused, while new proteins are built where they are needed.

Growth occurs when building exceeds breakdown over time.

This is one reason children cannot be treated simply as smaller adults. An adult body needs protein for maintenance and renewal. A child needs those things while also supporting growth.

In simple terms

Training gives the body a reason to adapt. Food supplies energy and materials. Rest and time allow that adaptation to take place.

WHAT GYMNASTICS ADDS

A stimulus, not instant construction

Gymnastics asks children to support, lift and organise their own body.

Even in a recreational class, a child may hang, climb, jump, land, balance, shape the trunk, push through the arms and repeat movements many times. These actions provide a physical stimulus.

Protein supplies amino acids that can contribute to the renewal and adaptation of tissues after activity. Small laboratory studies in healthy active children show that eating protein after exercise can influence whole-body protein balance during recovery.^{1,2}

WHAT THE SMALL LABORATORY STUDY EXAMINED

**13 active children¹**

A small participant group

**Controlled exercise**

Followed by drinks with different protein amounts

**Recovery measured**

Short-term whole-body protein balance

What it did not test: gymnastics skills, long-term strength or whether a protein shake improves recreational gymnastics progress.

Those findings are useful, but they require perspective.

The paediatric studies are small. They examine short-term metabolism under controlled conditions, often after cycling rather than gymnastics. They do not show that a protein shake makes a recreational gymnast stronger, or that a particular post-training dose produces better skills months later.

They help us understand a biological process. They do not create a universal feeding formula.

The whole day matters

Breakfast, school lunch, an after-school snack and the evening meal all contribute. A child who eats regularly may already have several sources of protein before class begins.

PARENT TAKEAWAY

There is no need to make every snack look like a recovery product.

SCIENTIFIC CONTEXT

How much protein do children need?

There is no single protein number that means the same thing in every context.

Population reference values describe amounts expected to meet the needs of nearly all healthy children. Sports-nutrition literature may discuss higher intakes for active young people—but these are contexts, not interchangeable prescriptions.

POPULATION REFERENCE	YOUNG-ATHLETE CONTEXT	HIGHER REPORTED INTAKES
≈0.85–0.92 g/kg/day across much of childhood, varying by exact age and sex in EFSA tables. ³	≈1.2–1.5 g/kg/day is discussed in sports-nutrition literature when total energy needs are met. ⁴	≥1.5 observed Some athletic groups have reported substantially higher intakes. Observation does not establish requirement.
Ages 4–6 19.7 g/day UK RNI	Ages 7–10 28.3 g/day UK RNI	Ages 11–14 42.1 / 41.2 g boys / girls · UK RNI ⁵

DO NOT ADD THESE FIGURES TOGETHER

The UK values and EFSA values are different population-reference frameworks. The athletic ranges describe a different context. None is a personalised target for an individual child.

A clinical review notes that young athletes typically need about 1.5 g/kg/day when energy intake is sufficient, while intakes above approximately 2.5 g/kg/day provide no additional adaptive benefit.⁴ The quality and distribution of food—and enough total energy and carbohydrate—remain essential.

National dietary surveys indicate that mean protein intakes in UK child age groups are generally above the relevant RNIs.⁶ This does not mean every child’s diet is ideal, but it does mean that protein shortage should not be presented as an everyday crisis.

PARENT TAKEAWAY

Use reference values as context, not as a daily scorecard or a reason to prescribe supplements.

A DIRECT CONTRIBUTION TO THE EVIDENCE

Gymnastics nutrition, studied from within

This magazine does not only interpret research from a distance. Its editor has contributed to the scientific literature on nutrition in gymnasts.

Research from the Editor

Dr Stefan Kolimechkov, Editor of *Kensington Gymnastics Magazine*, has co-authored several studies examining nutrition in young and elite gymnasts.

In one study of 38 preschool and primary-school artistic gymnasts, estimated protein intake averaged **3.23 g/kg/day** in the younger group and **2.94 g/kg/day** in the older group.⁷

A subsequent study of 76 competitive young artistic gymnasts also found significantly higher relative protein intake than in matched national-survey groups.⁸

Important: these were observed dietary intakes—not experimentally established requirements. They show what these groups consumed, rather than proving that every child gymnast needs the same amount.

2013 · Sofia

Early findings presented

Work on nutrition and physical development in young artistic gymnasts was presented at the Bulgarian Nutrition Conference.⁹

2016 · Peer-reviewed study

38 gymnasts, aged 4–12

Dietary intake and physical development were assessed in preschool and primary-school artistic gymnasts.⁷

2019 · Peer-reviewed study

76 competitive young gymnasts

Relative protein intake was significantly higher than in comparable national-survey groups.⁸

2019 · ECSS Congress, Prague

International presentation

Related findings from Olympic and elite rhythmic gymnasts were presented by Dr Kolimechkov at the European College of Sport Science Congress.¹⁰

2020 · Peer-reviewed publication

Elite rhythmic gymnastics

The international conference work was subsequently published in the *International Journal of Sports Science & Coaching*.¹¹

WHY THIS MATTERS

The editor's research experience strengthens the magazine's ability to distinguish between reference values, observed practice and claims about what children actually require.

ORDINARY FOODS

Where protein comes from

Protein is found in more foods than many families realise.

Dairy & alternatives

Milk, yoghurt, cheese and suitable fortified alternatives.

Eggs, fish & meat

Different foods bring different nutrients and traditions.

Beans & pulses

Lentils, chickpeas, beans and peas.

Soya foods

Tofu and other soya foods can contribute useful protein.

Nuts & seeds

Where age-appropriate, allergy-aware and safe.

Grains

Bread, oats, pasta, rice and cereals also contribute.



CHELSEA EXPLAINS

“Protein does not have to come from one ‘perfect’ food. A varied plate can bring protein, carbohydrate, vitamins, minerals and fibre together.”

Animal and plant foods can both contribute. What matters most is the pattern across the day—not making every meal win a protein contest.

Animal foods often provide all essential amino acids in readily used proportions. Plant foods contribute protein alongside components such as fibre and carbohydrate. A varied diet can provide the essential amino acids children need.¹² Vegan, highly restricted or multiple-allergy diets may require individual guidance from a GP or registered dietitian.

AMOUNT AND QUALITY ARE DIFFERENT

Which foods contain more protein?

Protein concentration can be compared as grams per 100 grams of food. Numerically, this is also the percentage of the food’s weight that is protein.

The ranking below compares selected animal and plant foods from the UK Composition of Foods Integrated Dataset.¹³ It does not rank overall health, protein quality or what a child “should” eat most often.

NO.	FOOD	PROTEIN PER 100 G	EXAMPLE SERVING	PROTEIN IN SERVING
1	Parmesan cheese	36.2 g · 36.2%	15 g	5.4 g
2	Chicken breast, grilled	32.0 g · 32.0%	70 g	22.4 g
3	Cheddar cheese	25.4 g · 25.4%	25 g	6.4 g
4	Tuna, canned in brine, drained	24.9 g · 24.9%	60 g	14.9 g
5	Salmon, farmed, grilled	24.6 g · 24.6%	80 g	19.7 g
6	Peanut butter, smooth	22.8 g · 22.8%	15 g	3.4 g
7	Almonds, whole	21.2 g · 21.2%	15 g	3.2 g
8	Tempeh	20.7 g · 20.7%	50 g	10.4 g
9	Egg, whole, boiled	14.1 g · 14.1%	1 egg · 50 g	7.1 g
10	Porridge oats, dry	10.9 g · 10.9%	30 g	3.3 g
11	Chickpeas, cooked	8.4 g · 8.4%	80 g	6.7 g
12	Tofu, steamed	8.1 g · 8.1%	80 g	6.5 g
13	Red lentils, cooked	8.1 g · 8.1%	80 g	6.5 g
14	Green peas, boiled	6.7 g · 6.7%	80 g	5.4 g
15	Greek-style plain yoghurt	5.7 g · 5.7%	125 g	7.1 g

Serving examples are illustrative, not prescribed portions; amounts are calculated from the per-100 g values. Whole nuts should not be given to children under five because of choking risk.¹⁴ Allergies and school or club food policies must always be considered.

EGG

HIGH QUALITY

Why is egg regarded as a high-quality protein?

Egg contains all nine essential amino acids and is highly digestible.¹² That describes the *quality* of its protein—not the percentage of the egg that is protein. Amount and quality answer different questions.

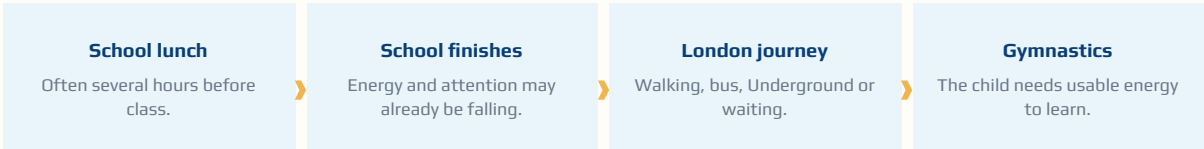
HOW TO USE THE TABLE

A food lower in the ranking can still provide more protein in the portion normally eaten. Variety, the whole diet and the child’s needs matter more than winning a league table.

SCHOOL TO GYMNASTICS

Protein without a sports product

For many London children, the difficult part is not identifying a protein-rich food. It is finding a calm opportunity to eat.



A practical snack might include:

Plain yoghurt with fresh fruit	A banana with a little nut or seed butter, where suitable
Apple or pear with age-appropriate unsalted nuts or seeds	Carrot, cucumber or pepper sticks with hummus
Wholegrain toast with hummus or mashed avocado	A small bowl of oats with milk or a fortified alternative and berries

These are examples, not rules. Fresh, minimally processed foods are a useful starting point, but timing, appetite, allergies, choking safety, storage and the child’s normal tolerance all matter. Some children prefer a lighter snack before class and a fuller meal afterwards.

Most importantly, a pre-gymnastics snack needs to provide usable energy. Protein can be present, but carbohydrate remains important — particularly after a long school day.

London reality
A simple snack that a child will comfortably eat is more useful than a theoretically perfect snack that remains in the bag.

MYTH AND UNDERSTANDING

What families often hear

“My child does gymnastics, so they need a protein shake.”

Most young recreational gymnasts can obtain sufficient protein from ordinary food. Supplements may add expense, large doses and unclear marketing claims. They are not an automatic requirement of sport.

“More protein will make my child stronger.”

Strength develops through growth, appropriate activity, coordination, progressive challenge, sufficient food, recovery and time. Protein contributes, but does not bypass those other requirements.

“Protein matters more than carbohydrate.”

They have different roles. Carbohydrate provides important energy; protein supplies amino acids for building and renewal. A child needs both within a complete diet.

“Only meat counts.”

Fish, eggs, dairy, beans, lentils, chickpeas, tofu, peas, nuts, seeds and grains can all contribute. Variety is more useful than a narrow league table.

“Every meal must be calculated.”

Healthy eating does not require a spreadsheet. Regular meals, varied foods and attention to overall growth, energy and wellbeing are usually more useful than measuring every gram.

EDITORIAL PERSPECTIVE

Nutrition becomes less helpful when it turns every plate into a ranking.

CALM OBSERVATION

What families may notice

It would be misleading to offer a simple list of signs that a child “needs more protein”.

Tiredness, irritability, changing appetite and slower progress can have many possible explanations. They may relate to insufficient total food, sleep, illness, stress, the school day, a growth phase or something entirely different.

Families can instead notice the wider pattern:

Is the child regularly missing meals or snacks?

Have several major food groups been removed?

Is the diet becoming increasingly restricted?

Is food causing distress or conflict?

Are concerns about growth or appetite persistent?

Are health or energy concerns continuing?

These observations do not diagnose a nutritional problem. Persistent concerns are better discussed with the child’s GP or a registered dietitian, especially where allergies, medical conditions or significant dietary restrictions are involved.

The goal is calm attention, not surveillance.

What this chapter does not say

It does not say that protein intake never matters, that every child eats enough, or that every dietary pattern is automatically complete. It does not dismiss vegetarian or vegan diets, and it does not claim that animal protein is compulsory.

The responsible conclusion is measured: protein is essential, but most healthy UK children already consume amounts above population reference levels.⁶ Ordinary varied food is usually a more appropriate foundation than sports supplements.

CLOSING PERSPECTIVE

The whole child, not one nutrient

Protein has become a symbol of sport. Yet children's gymnastics is not adult fitness culture in miniature. The aim is not to maximise one nutrient, construct a particular appearance or make food feel like a technical test.

A child needs enough energy to arrive ready to learn. They need carbohydrate to fuel active muscles and the brain. They need protein to build and renew tissues. They need dietary fat, vitamins and minerals. They need rest, sleep, safe coaching and time.

KEY TAKEAWAY

Protein helps build and renew a growing body, but children do not need a bodybuilder's diet. For most young recreational gymnasts, varied family meals and snacks provide enough. Growth comes before performance, and the whole diet matters more than any single nutrient.

LOOKING AHEAD

In the next issue, we will explore dietary fat: why it is essential for children's energy, brain development and normal growth, and why "low fat" is not automatically better for a growing gymnast.

Key references

1. Moore, D. R., Volterman, K. A., Obeid, J., Offord, E. A., & Timmons, B. W. (2014). Postexercise protein ingestion increases whole body net protein balance in healthy children. *Journal of Applied Physiology*, 117(12), 1493–1501. doi:10.1152/japplphysiol.00224.2014
2. Volterman, K. A., Moore, D. R., Breithaupt, P., Grathwohl, D., Offord, E. A., Karagounis, L. G., & Timmons, B. W. (2017). Timing and pattern of postexercise protein ingestion affects whole-body protein balance in healthy children: a randomized trial. *Applied Physiology, Nutrition, and Metabolism*, 42(11), 1142–1148. doi:10.1139/apnm-2017-0185
3. EFSA Panel on Dietetic Products, Nutrition and Allergies. (2012). Scientific opinion on dietary reference values for protein. *EFSA Journal*, 10(2), 2557. doi:10.2903/j.efsa.2012.2557
4. Hecht, C., Bank, N., Cook, B., & Mistovich, R. J. (2023). Nutritional recommendations for the young athlete: current concept review. *Journal of the Pediatric Orthopaedic Society of North America*, 5(1). doi:10.55275/JPOSNA-2023-599
5. Public Health England. (2016). *Government dietary recommendations*. assets.publishing.service.gov.uk
6. Public Health England & Food Standards Agency. (2017). *National Diet and Nutrition Survey: results from years 1–4 of the rolling programme*. Revised February 2017.
7. Kolimechkov, S. T., Petrov, L. A., Alexandrova, A. V., & Atanasov, P. S. (2016). Nutrition and physical development assessment of pre-school and primary school children practising artistic gymnastics. *African Journal for Physical Activity and Health Sciences*, 22(2:2), 565–577.
8. Kolimechkov, S., Yanev, I., Kiuchukov, I., Petrov, L., Alexandrova, A., Zaykova, D., & Stoimenov, E. (2019). Nutritional status and body composition of young artistic gymnasts from Bulgaria. *Journal of Applied Sports Sciences*, 3(1), 39–52. doi:10.37393/jass.2019.01.4
9. Kolimechkov, S., Petrov, L., Alexandrova, A., Andreeva, L., & Atanasov, P. (2013). Assessment of the nutrition and physical development of pre-school and primary-school children practising artistic gymnastics. VI Bulgarian Nutrition Conference, Sofia, 17 May 2013.
10. Kolimechkov, S., Miteva, S., Yanev, I., & Petrov, L. (2019). Body composition and nutrient intake of Olympic and elite rhythmic gymnasts. Abstract 1081, 24th Annual Congress of the European College of Sport Science, Prague, 3–6 July 2019.
11. Miteva, S., Yanev, I., Kolimechkov, S., Petrov, L., Mladenov, L., Georgieva, V., & Somlev, P. (2020). Nutrition and body composition of elite rhythmic gymnasts from Bulgaria. *International Journal of Sports Science & Coaching*, 15(1), 108–116. doi:10.1177/1747954119892803
12. Food and Agriculture Organization of the United Nations. (2013). *Dietary protein quality evaluation in human nutrition: report of an FAO Expert Consultation*. FAO Food and Nutrition Paper 92. fao.org/4/i3124e/i3124e.pdf
13. Public Health England. (2021). *McCance and Widdowson's The Composition of Foods Integrated Dataset 2021*. PHE publications gateway number GW-2010. gov.uk/government/publications/composition-of-foods-integrated-dataset-covid
14. Scientific Advisory Committee on Nutrition. (2023). *Feeding young children aged 1 to 5 years*. Updated 23 February 2024. gov.uk/government/publications/sacn-report-feeding-young-children-aged-1-to-5-years

Foundations

Recovery in Gymnastics

Sleep: The Most Powerful Recovery Tool

Why sleep matters for growing gymnasts — and what busy London families can realistically support

Families sometimes ask a simple question after an evening gymnastics class: should a child eat, stretch, bathe or do something special to “recover”?

Those things may have a place in an ordinary evening. Yet one of the most important recovery opportunities is much less dramatic. It is sleep.

Sleep is not a passive gap between one day and the next. During sleep, the body continues to regulate, repair and organise.¹

Issue 1 · Recovery is part of training.

Issue 2 · Adaptation continues after the session.

Issue 3 · Sleep creates a recurring opportunity to recover.



CHELSEA EXPLAINS

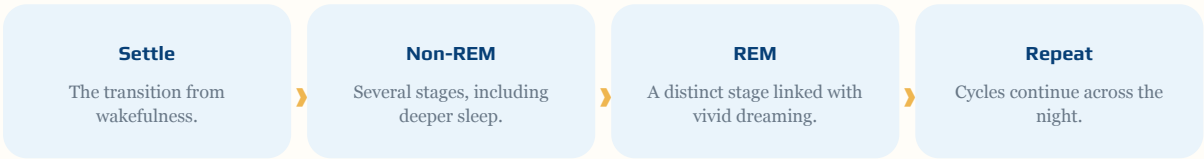
“Rest is not giving up on gymnastics. Sleep gives my body and brain quiet time before I learn again.”

A CHANGING BIOLOGICAL STATE

Sleep is active, not empty

Sleep is not one uniform state. Across the night, the brain and body move through repeating stages.

These include non-rapid eye movement sleep and rapid eye movement (REM) sleep. The pattern changes across the night and across childhood.¹



Families do not need to measure these stages. Consumer watches and apps may offer estimates, but the central message does not require a nightly score.

Brain Processes experience and supports memory, attention and emotional regulation.	Whole body Continues regulation, restoration and preparation for the next day.
Growth Sleep interacts with hormonal regulation; it is not a single growth switch.	Readiness Supports the child’s capacity to learn, participate and respond.
PARENT TAKEAWAY <i>Sleep is part of whole-child health, not merely a sport-performance technique.</i>	

POPULATION GUIDANCE

How much sleep?

Healthy sleep needs change with age. Recommendations are ranges—not minute-by-minute prescriptions.



The American Academy of Sleep Medicine developed these consensus ranges for healthy children. Sleeping within the recommended range on a regular basis is associated with better attention, behaviour, learning, memory, emotional regulation and physical and mental health.²

They are population recommendations, not tests of parenting. Individual needs, disability, illness, development and circumstances may change what is realistic or appropriate.

THE IMPORTANT WORD IS REGULARLY

A single short night does not define a child’s health. Recovery is built from patterns over time.

Time in bed and time asleep are not always identical. The practical goal is to allow enough opportunity for settling and sleep rather than calculating a perfect number after the fact.

PARENT TAKEAWAY

Use the ranges as calm context, not as a nightly grade.

THE WHOLE DEMAND

What is recovering?

Gymnastics asks more of a child than muscular effort.

Force & control	Balance & timing	Attention & memory	Emotion & persistence
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Muscles produce force. Joints and connective tissues experience load. The nervous system coordinates balance, timing and direction. The child also listens, remembers, waits, adapts and manages emotion.

Sleep does not directly teach a handstand or repair every tissue by morning. It provides a recurring biological context in which many recovery and regulatory processes can occur.

The careful conclusion

Sleep does not guarantee progress. Repeatedly restricting it removes an important opportunity for health, learning and recovery.

Research in young athletes is still developing. Reviews associate insufficient sleep with poorer wellbeing and, in some studies, greater injury risk.^{1,3} These findings do not prove that sleep alone causes or prevents injury. Training load, previous injury, growth, health, stress and many other factors also matter.

EVIDENCE BOUNDARY

“Associated with” is not the same as “caused by”. Sleep is one part of a wider recovery system.

THE EVIDENCE IN CHILDREN

Can sleep support motor learning?

A movement experience may still be organised after the visible practice has ended.

A child can leave class with information about how much force was needed, where balance was lost, or which instruction changed the movement.

**A 2025 systematic review**

Six of nine included studies reported better motor-skill acquisition after sleep than after wakefulness. However, every included study was judged to have a high risk of bias.⁴

That makes the evidence suggestive, not conclusive. It supports the careful statement that sleep *may* help children consolidate motor learning. It does not show that a particular bedtime will produce a particular gymnastics skill.

WHAT CONSOLIDATION MEANS

A newly practised experience becomes more stable or organised over time. This can occur without visible additional practice, but the processes are complex and evidence differs between tasks.

Good coaching, appropriate repetition and feedback remain essential. Sleep is not a substitute for learning; it is part of the context in which learning may continue.

PARENT TAKEAWAY

A skill sometimes feels more settled after time away. That does not mean sleep “taught” it by itself.

BEYOND THE APPARATUS

How tiredness may appear

A tired child does not always look sleepy.

They may seem less patient, less able to manage frustration, slower to respond—or unusually energetic. None of these signs proves that sleep is the cause.

Attention

Following a demonstration and noticing what changes.

Inhibition

Waiting for a turn and not moving before it is safe.

Memory

Holding instructions or a sequence in mind.

Emotion

Managing disappointment and trying again calmly.

Adequate sleep is associated with better attention, behaviour, learning, memory and emotional regulation in children.²

LINK TO THIS ISSUE'S FEATURE

Gymnastics asks children to listen, control an immediate response, remember and adapt. Sleep does not replace good teaching, but it may support the child who returns ready to use those abilities again.

When a child arrives unusually tired, calm communication is more useful than treating reduced concentration as poor character or lack of commitment.

COACH AND FAMILY

A tired day may call for adjusted expectations, not judgement.

SCHOOL TO SLEEP

When the barrier is time

For many London families, the challenge is not knowing that sleep matters. It is fitting an evening together.



A child may finish school, travel to gymnastics, train, travel home, eat, wash, complete homework and try to settle—all within a compressed evening.

The answer should not be guilt or a complicated recovery protocol. It may help to work backwards from the morning:



London reality

On late-class days, “good enough and repeatable” may be more useful than an ideal routine no family can sustain.

FLEXIBLE FAMILY PRINCIPLES

A routine, not a recovery performance

The purpose of a bedtime routine is to make settling more predictable—not to create another test for the child.

Reasonable consistency

Keep waking and bedtime patterns recognisable where possible.

A calm transition

Begin winding down before the child becomes overtired.

Less stimulation

Reduce phones, tablets and laptops close to bedtime.

A prepared morning

Organise kit, clothes or school bags earlier.

A suitable room

Calm, comfortable and appropriately dark.

Conversation

Persistent worries deserve listening, not a bedtime battle.

The NHS recommends a calming, predictable routine for young children and advises avoiding laptops, tablets and phones in the 30–60 minutes before bed.⁵

These are principles, not guarantees. Families with disabled or neurodivergent children, medical conditions, shift-work patterns or shared bedrooms may face different realities and may need tailored support.

ABOUT TRACKERS

A watch may estimate aspects of sleep, but it cannot certify that recovery is complete or diagnose a sleep disorder.⁶ Data should not become a nightly grade or source of anxiety for a child.



CHELSEA'S MESSAGE

“Calm and familiar beats complicated and perfect.”

NOTICE PATTERNS, NOT ONE NIGHT

What families may notice

An occasional tired morning is ordinary. Persistent patterns deserve attention.

Regular difficulty waking	Persistent daytime sleepiness
Repeated trouble settling or staying asleep	Marked changes in mood, attention or participation
Habitual loud snoring, gasping or pauses in breathing ⁷	Fatigue continuing despite adequate rest opportunity

These signs do not prove a sleep disorder. They may have many explanations.

When to seek advice

Persistent sleep concerns, breathing problems during sleep, or fatigue affecting everyday life should be discussed with the child’s GP or another appropriate healthcare professional.

Families should not diagnose a child from an article, a tracker or a checklist. Nor should persistent difficulty be dismissed as poor discipline.

HEALTH NOTICE

This content is general information and not medical advice. For pain, injury or health concerns, consult an appropriate healthcare professional.

PARENT TAKEAWAY

Calm observation is useful. Diagnosis belongs with the right professional.

MYTH AND UNDERSTANDING

Sleep without perfectionism

“The more exhausted a child is, the better they will sleep.”

Very late or highly stimulating evenings do not guarantee easier settling. An overtired child may find it harder to settle or regulate their behaviour.

“Weekend catch-up solves the whole week.”

Extra weekend rest may help a child feel more rested, but it does not make an unsustainable weekly pattern irrelevant.

“A tracker tells us whether recovery worked.”

Consumer devices offer estimates. They should not become a nightly grade for a child.

“A supplement is the next step.”

Sleep difficulties in children should not be self-treated with supplements. Persistent problems deserve professional advice.

“One poor night will ruin training.”

Recovery is a pattern. On a tired day, expectations can be adjusted calmly.

FINAL TAKEAWAY

A consistent sleep opportunity is one of the simplest ways to support a growing child’s health, learning and recovery. Families need a realistic pattern—not a perfect routine, recovery product or nightly score.

Key references

1. Coel, R. A., Pujalte, G. G. A., Applewhite, A. I., Zaslow, T., Cooper, G., Ton, A. N., & Benjamin, H. J. (2023). Sleep and the young athlete. *Sports Health*, 15(4), 537–546. doi:10.1177/19417381221108732
2. Paruthi, S., Brooks, L. J., D'Ambrosio, C., Hall, W. A., Kotagal, S., Lloyd, R. M., Malow, B. A., Maski, K., Nichols, C., Quan, S. F., Rosen, C. L., Troester, M. M., & Wise, M. S. (2016). Recommended amount of sleep for pediatric populations: a consensus statement of the American Academy of Sleep Medicine. *Journal of Clinical Sleep Medicine*, 12(6), 785–786. doi:10.5664/jcsm.5866
3. Gao, B., Dwivedi, S., Milewski, M. D., & Cruz, A. I. Jr (2019). Lack of sleep and sports injuries in adolescents: a systematic review and meta-analysis. *Journal of Pediatric Orthopaedics*, 39(5), e324–e333. doi:10.1097/BPO.0000000000001306
4. Marques Filho, J. M. V., Oliveira, A. A. R., de Bruin, V. M. S., Viana, R. B., & de Bruin, P. F. C. (2025). Influence of sleep on motor skill acquisition in children: a systematic review. *Journal of Sleep Research*, 34(2), e14309. doi:10.1111/jsr.14309
5. NHS. (2023). *Sleep and young children*. nhs.uk/baby/health/sleep-and-young-children. Page last reviewed 31 March 2023.
6. Khosla, S., et al.; American Academy of Sleep Medicine Board of Directors. (2018). Consumer sleep technology: an American Academy of Sleep Medicine position statement. *Journal of Clinical Sleep Medicine*, 14(5), 877–880. doi:10.5664/jcsm.7128
7. Great Ormond Street Hospital for Children NHS Foundation Trust. (2025). *Obstructive sleep apnoea*. gosh.nhs.uk/conditions-and-treatments. Last reviewed 31 January 2025.

Gymnastics for Life

Masters & Lifelong Movement

Why Balance Changes With Age — and How Gymnastics May Help

Balance is not a gift that we either possess or lose. It is a living system that can be challenged, practised and supported throughout adulthood.

Many adults think about balance only after something draws attention to it: an uneven paving stone, a crowded Underground carriage, or a step that feels less automatic than it once did.

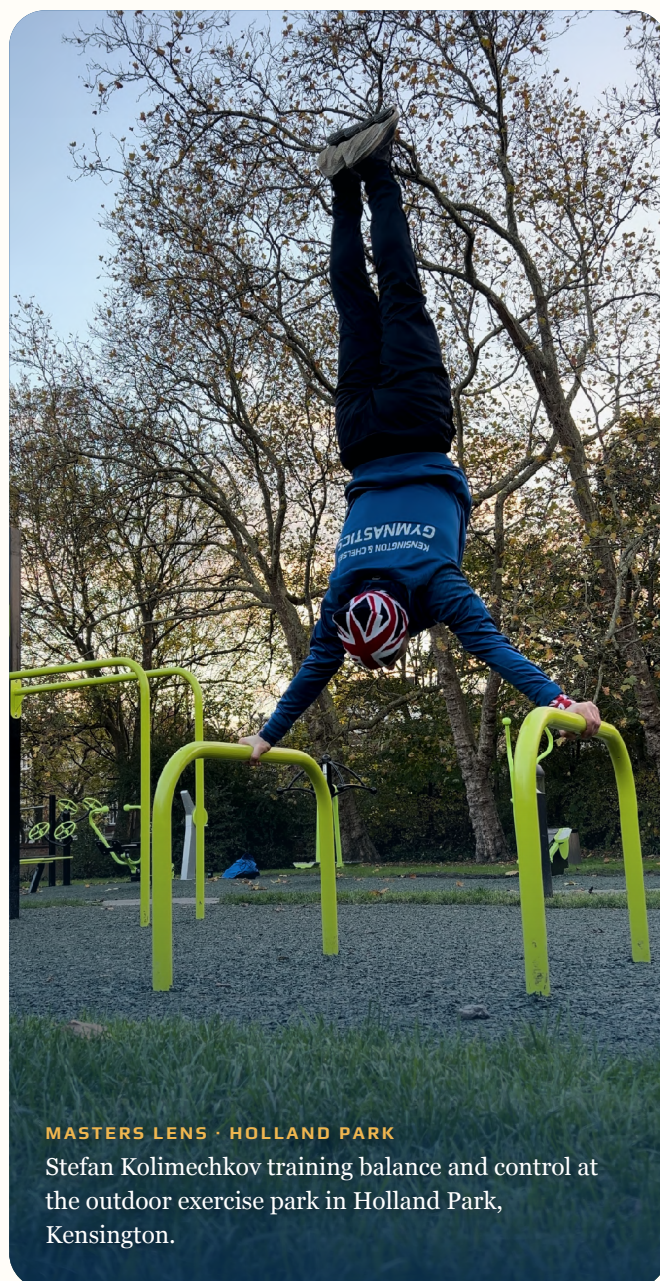
Ageing can change several parts of the balance system.^{1,2} Exercise can improve balance and reduce falls in older adults.^{3,4}

Gymnastics is interesting because balance is not added as a separate exercise. It runs through standing, landing, turning, supporting, rotating and recovering.

Issue 1 · Gymnastics beyond childhood.

Issue 2 · Strength and muscle loss.

Issue 3 · Balance, coordination and confidence.



MASTERS LENS · HOLLAND PARK

Stefan Kolimechikov training balance and control at the outdoor exercise park in Holland Park, Kensington.

MORE THAN STANDING STILL

A family of abilities

Balance is the ability to keep the body controlled in relation to gravity, the surface beneath us and the movement we are trying to perform.

1

Static balance

Maintaining control while relatively still: standing, pausing or holding a position.

2

Dynamic balance

Maintaining control while moving: walking, turning, stepping, landing or changing direction.

3

Reactive balance

Recovering after a slip, push, missed step or unexpected movement.

In real life these forms overlap. Walking down a busy London pavement requires continuous adjustment. We alter step length, avoid other people, respond to noise and manage uneven ground, often while thinking about something else.

A body that appears still is also making small corrections. The important question is whether those corrections are timely and appropriate.

TASK-SPECIFIC, NOT UNIVERSAL

A person may stand calmly on one leg yet struggle when turning quickly, stepping over an obstacle or responding to a disturbance. One balance task cannot describe the complete system.

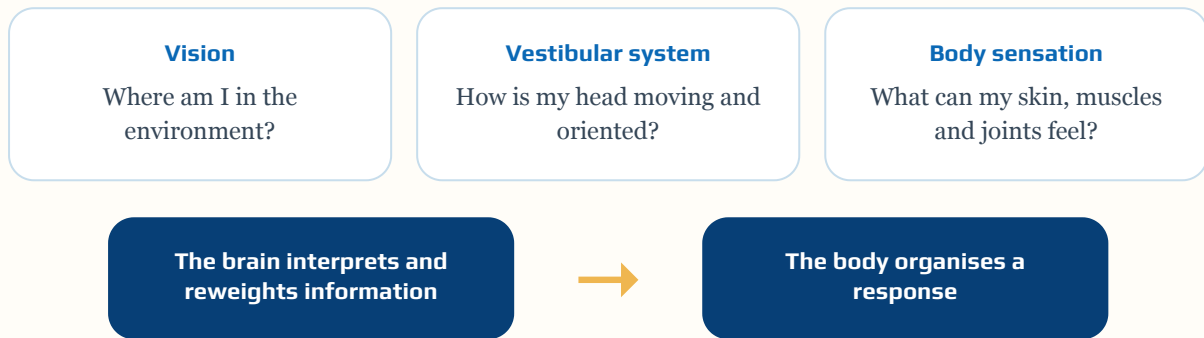
KEY IDEA

Balance is not one ability. It is a family of abilities used in different situations.

INFORMATION, DECISION AND ACTION

How the body knows where it is

Balance emerges from cooperation between sensory information, the nervous system and the body's capacity to respond.



In darkness, vision becomes less useful. On a soft surface, information from the feet and ankles may become less reliable. The nervous system must decide which signals deserve greater emphasis.

Muscle strength, joint mobility, reaction speed, coordination and previous experience shape the response. Sensing a loss of balance is not enough if the body cannot organise an effective step, reach or change in posture.

ATTENTION BELONGS IN THE SYSTEM

Balance often shares mental resources with conversation, navigation, carrying objects or making decisions. This is one reason it may feel different when a person is tired, distracted or anxious.

BALANCE IS A CONVERSATION

The senses report, the brain interprets and the body responds.

GRADUAL AND INDIVIDUAL

There is no single balance birthday

Ageing does not switch balance off. Changes are gradual, uneven and influenced by health, experience, activity and environment.

Adulthood	Midlife	Later life	Every age
Balance is already working across complex daily tasks.	Subtle changes may be masked by experience and strength.	Sensory and motor changes may become more important.	Practice and appropriate exercise can still matter.

Research describes age-related changes in sensory processing, vestibular function, reaction time, muscle strength and the flexible coordination of posture. Older adults may sway more in some conditions or find adaptation harder when information becomes unreliable.^{1,2}

The effect is not identical in every person or task. A healthy adult who feels rusty during an unfamiliar movement is not the same as someone experiencing repeated falls or persistent dizziness. In older adults, dizziness is associated with a greater risk of future falls and fall-related injury.⁵

Falls are multifactorial

Previous falls	Strength & mobility	Vision & hearing
Dizziness & medication	Health conditions	Environment & footwear
Attention	Fear & confidence	Gait & reaction

THE CAREFUL CONCLUSION

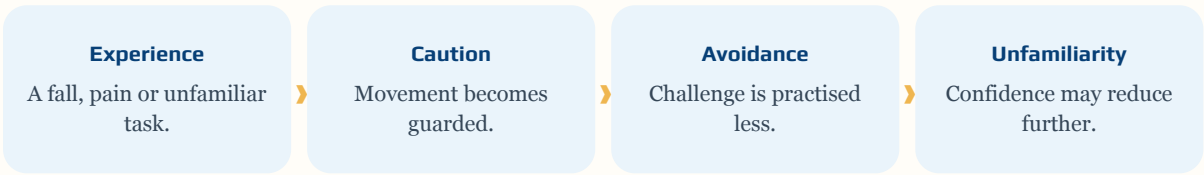
Balance can improve,³ but falls prevention is broader than balance training; adults at higher risk may need comprehensive assessment.⁶

PROTECTION WITHOUT PARALYSIS

Fear can change movement

Fear has a protective purpose. It warns us when a situation may exceed our present ability.

After a fall, injury or long period away from movement, a person may become more cautious. They may take shorter steps, avoid uneven ground, stop participating or stiffen when challenged.



Fear of falling is not imaginary or a failure of character. It can affect attention, decision-making and the way the body moves. Exercise may reduce fear in some older adults, although findings vary and many studies have limitations.⁷

What the strongest evidence says

A large Cochrane review found that exercise reduced the rate of falls among community-dwelling adults aged 60 and over. Balance and functional exercises were among the approaches supported by high-certainty evidence.⁴

This does not mean every activity has the same effect, or that gymnastics replaces an individual falls programme. NICE recommends comprehensive assessment for people at higher risk rather than relying on one exercise or test.⁶

WHEN TO SEEK ADVICE

Persistent unsteadiness, repeated falls, new dizziness or a sudden change in balance deserves appropriate healthcare assessment.

VARIED MOVEMENT PROBLEMS

Balance is woven through the sport

Gymnastics is not the only route to better balance. Its distinctive feature is the variety of postural problems it presents.

Different supports

Weight passes through hands as well as feet.

Changing orientation

The body moves upright, horizontal and inverted.

Landings & flight

Control must return after movement through space.

Moving apparatus

Body and equipment may change together.

Rotation

Eyes, head and body coordinate through turns.

Recovery

Small errors require timely correction.

Studies of gymnasts support the idea that experience can influence postural regulation. Researchers have observed faster stabilising responses after a disturbance in gymnasts than in non-gymnasts.⁸

Other work shows that handstand balance and ordinary standing balance remain distinct tasks. Training one form of balance does not guarantee perfect performance everywhere.⁹

EVIDENCE BOUNDARY

Direct research on masters artistic gymnastics and fall prevention is sparse. Gymnastics should be described as one possible source of varied balance challenge—not as a proven preventive treatment.

For adults, the principles can be adapted through controlled stepping, floor transitions, supported shapes, changes of direction, body-weight strength and appropriately scaled coordination tasks.

LIFELONG PRINCIPLE

The movements can change while the balance system continues to receive meaningful problems to solve.

FROM MY OWN EXPERIENCE

What experience preserves—and what practice restores

DR STEFAN KOLIMECHKOV

“In some areas, my control is better than it was when I was younger.”

Masters artistic gymnast,
coach and editor of
Kensington Gymnastics
Magazine

I would not say that I have noticed a general loss of balance or coordination as I have grown older.

My handstand is a clear example. Years of practice have made it more stable, and I can now control it with several head positions, including a neutral head position. Experience has given me a deeper understanding of the small corrections that keep the shape organised.

But not every ability feels the same.

If I return to giant swings on the horizontal bar after not performing them for some time, the first attempts can produce an unfamiliar sensation—something approaching mild dizziness or reduced spatial certainty. After a few attempts, and again in the next session, that feeling normally disappears.

WHAT THIS CAN—AND CANNOT—TELL US

This experience does not prove what is happening inside the vestibular system. Research in high-level gymnasts shows complex, task-specific coordination rather than a simple permanent “upgrade” of one vestibular reflex.

The safer lesson is familiarity. A movement that once felt automatic may initially feel strange after time away. Repeated, controlled exposure can make it feel organised again.

TECHNIQUE, TIMING AND CONFIDENCE

Returning to a difficult skill

When I revisit a difficult exercise, basic strength or balance may still be present. What often needs rebuilding is:

1

Muscular coordination

2

Precise timing

3

Technique

4

Spatial familiarity

5

Confidence

Dynamic skills now feel more demanding to me than many static strength elements. High-speed movement requires timing, spatial orientation and confidence to arrive together.

That is why I approach each apparatus gradually. My warm-up is longer, particularly for the shoulders. I use elastic bands and apparatus-specific preparation, and I build intensity rather than starting at full force.

Fear has affected my gymnastics throughout my life. If it becomes too strong, it is difficult to commit. Yet having no fear would be dangerous. The aim is not to remove fear, but to understand whether it is giving useful information.

LEARNING TO FALL

Gymnastics taught me that losing balance is not always the end of control. Depending on the situation, a trained response may absorb or distribute force rather than allowing one joint to receive the entire impact. These are supervised, context-dependent skills—not instructions for readers to practise falling alone.

“

Some decline may be inevitable as we grow older. But the rate at which we decline is not entirely beyond our influence.

STEFAN KOLIMECHKOV · MASTERS GYMNAST

A MOVING CITY

Balance rarely happens on a perfect floor

London asks us to combine balance with attention, judgement and reaction.

01 Platform Step across a gap and change level.	02 Carriage Respond when a train moves unexpectedly.	03 Pavement Navigate crowds, rain and uneven ground.	04 Stairs Manage pace, bags and divided attention.
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The city can provide daily movement, but it can also remove variety. Long hours at a desk, commuting and screen-based work reduce the positions many adults experience. A person may walk thousands of steps yet rarely get down to the floor, move sideways, reach, turn or recover from a controlled loss of balance.

London reality

Being busy and giving the balance system varied practice are not always the same thing.

Practical principles for adults

Keep movement varied Do not rely on one familiar pattern.	Train the supporting qualities Strength, mobility and coordination belong together.
Progress gradually Use stable support and qualified guidance where appropriate.	Notice persistent change Falls, dizziness or unsteadiness may need assessment.

NHS guidance recommends that adults aged 65 and over remain active every day and do activities that improve strength, balance and flexibility on at least two days each week.¹⁰ Individual health and circumstances should shape what is appropriate.

MYTHS, MEANING AND EVIDENCE

Balance across life

“Balance only matters in old age.”

Serious fall risk becomes more important later, but balance is used throughout adulthood.

“Standing on one leg is a complete balance programme.”

It is one task. Real balance also involves stepping, turning, reacting and recovering.

“If I wobble, I am failing.”

Small corrections are part of balance. The goal is an appropriate, controlled response.

“Confidence means being fearless.”

Useful confidence includes judgement and grows from preparation and manageable progressions.

“Gymnastics prevents falls.”

That claim is not established. Adapted gymnastics may offer varied balance challenges, but it is not a guaranteed preventive treatment.

FINAL TAKEAWAY

Balance is a cooperative system involving sensation, attention, strength, coordination, experience and confidence. Ageing may change it, but it remains responsive to practice. The purpose is to preserve the capacity to notice, adjust and respond.

Looking ahead

In the next issue, *Gymnastics for Life* will examine mobility, flexibility and joint health: why movement may feel stiffer with age, and how adults can preserve useful range without chasing extreme positions.

Key references

1. Allen, D., Ribeiro, L., Arshad, Q., & Seemungal, B. M. (2016). Age-related vestibular loss: current understanding and future research directions. *Frontiers in Neurology*, 7, 231. doi:10.3389/fneur.2016.00231
2. Yeh, T.-T., Cinelli, M. E., Lyons, J. L., & Lee, T. D. (2015). Age-related changes in postural control to the demands of a precision task. *Human Movement Science*, 44, 134–142. doi:10.1016/j.humov.2015.08.021
3. Howe, T. E., Rochester, L., Neil, F., Skelton, D. A., & Ballinger, C. (2011). Exercise for improving balance in older people. *Cochrane Database of Systematic Reviews*, (11), CD004963. doi:10.1002/14651858.CD004963.pub3
4. Sherrington, C., Fairhall, N., Wallbank, G., Tiedemann, A., Michaleff, Z. A., Howard, K., Clemson, L., Hopewell, S., & Lamb, S. (2020). Exercise for preventing falls in older people living in the community: an abridged Cochrane systematic review. *British Journal of Sports Medicine*, 54(15), 885–891. doi:10.1136/bjsports-2019-101512
5. Li, Y., Smith, R. M., Whitney, S. L., Seemungal, B. M., & Ellmers, T. J. (2024). Association between dizziness and future falls and fall-related injuries in older adults: a systematic review and meta-analysis. *Age and Ageing*, 53(9), afae177. doi:10.1093/ageing/afae177
6. National Institute for Health and Care Excellence. (2025). *Falls: assessment and prevention in older people and in people 50 and over at higher risk* (NICE Guideline NG249). nice.org.uk/guidance/ng249.
7. Kumar, A., Delbaere, K., Zijlstra, G. A. R., Carpenter, H., Iliffe, S., Masud, T., Skelton, D., Morris, R., & Kendrick, D. (2016). Exercise for reducing fear of falling in older people living in the community: Cochrane systematic review and meta-analysis. *Age and Ageing*, 45(3), 345–352. doi:10.1093/ageing/afw036
8. Gautier, G., Thouvenecq, R., & Larue, J. (2008). Influence of experience on postural control: effect of expertise in gymnastics. *Journal of Motor Behavior*, 40(5), 400–408. doi:10.3200/JMBR.40.5.400-408
9. Omorczyk, J., Bujas, P., Puszczalowska-Lizis, E., & Biskup, L. (2018). Balance in handstand and postural stability in standing position in athletes practicing gymnastics. *Acta of Bioengineering and Biomechanics*, 20(2), 139–147. PMID: 30220715.
10. NHS. (2024). *Physical activity guidelines for older adults*. nhs.uk.

London & the World

Gymnastics in London

Why Some Areas of London Have More Gymnastics Than Others

What our original London-wide audit reveals about place, provision and the opportunities families can actually reach

Two children can live in the same city and experience completely different versions of gymnastics.

One family may find several classes within a short journey of school. Another may cross boroughs, join waiting lists and rearrange an afternoon around one available hour.

In London, a postcode does not determine a child's potential. It can influence what the family can realistically find, reach and repeat.

Building the series

Issue 1 · London pathways

Issue 2 · Small spaces

Issue 3 · Uneven access

188

verified delivery venues

120 providers · 1 August 2026

AN INDEPENDENT PUBLIC-SOURCE AUDIT

We investigated the question directly

Until now, there has been no simple public answer to a simple family question: where can children in London access gymnastics?

For Issue 3, *Kensington Gymnastics Magazine* created a dated, reproducible audit across all 32 London boroughs and the City of London.

1 Discover 219 directory records formed the starting pool.	2 Verify Official provider, venue, council and governing-body sources were checked.	3 Locate Every included address and postcode was geographically reviewed.	4 Analyse Venues, providers, settings, disciplines and child-population rates were calculated.
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A venue entered the map only when we could confirm:

- a Greater London delivery location;
- a public route to enquire, book or join;
- a recognisable children’s gymnastics activity;
- a precise address or postcode; and
- current supporting evidence.

The unit counted was one delivery venue. A provider operating at three verified locations therefore contributed three access points while remaining one provider in the organisational count.

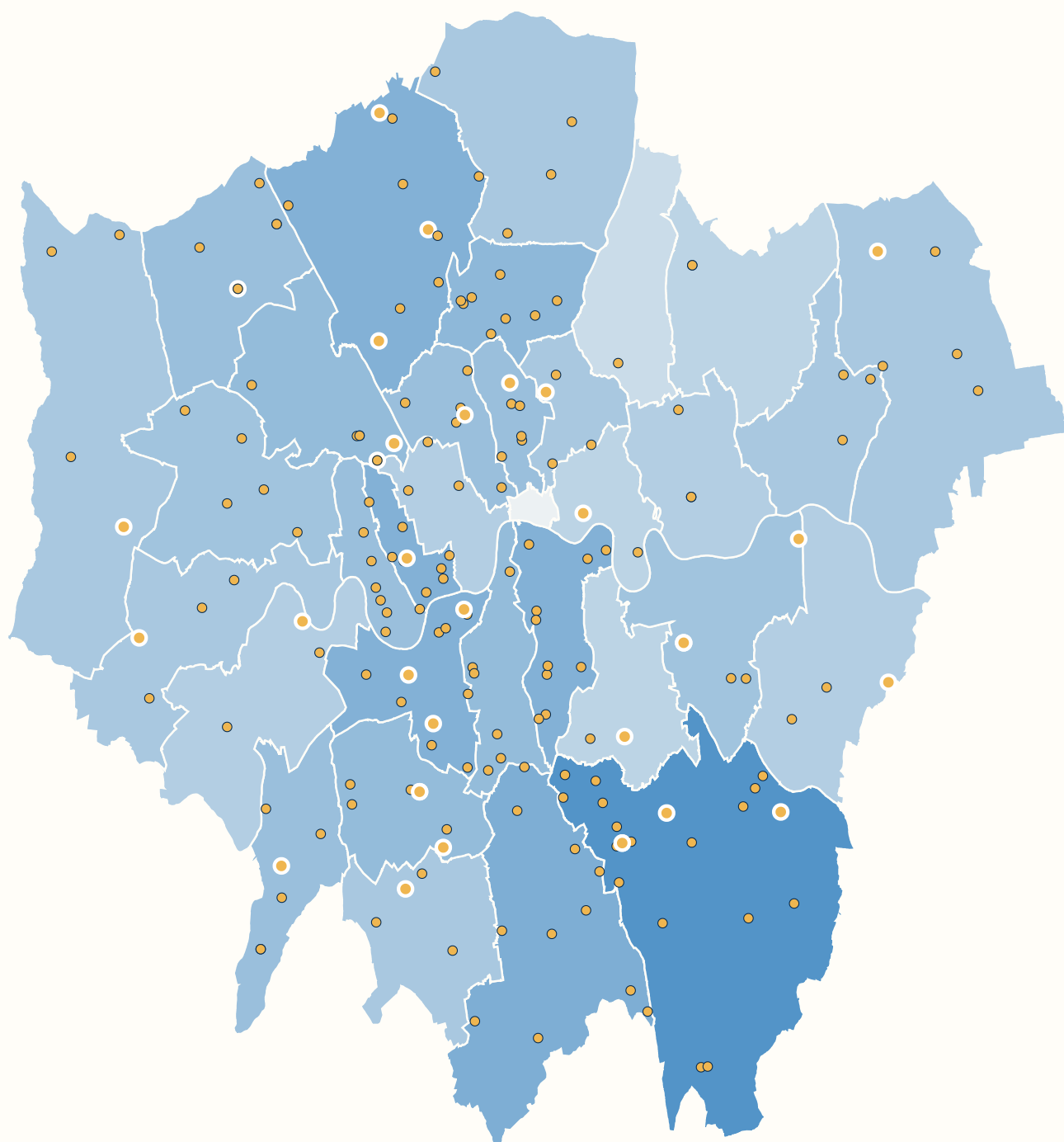
CAREFUL LANGUAGE

This is a verified snapshot of public information—not a statutory register or governing-body census.

ORIGINAL RESEARCH · VERIFIED SNAPSHOT

Children's gymnastics across Greater London

One gold point per verified public delivery venue · 1 August 2026



● Verified delivery venue ● Dedicated or purpose-built

How to read it Borough shading reflects the verified venue count. Each point shows the approximate postcode location of a verified delivery venue—not its precise building entrance. It does not guarantee a vacancy, measure capacity or imply endorsement. The complete named venue directory and source dates will accompany the online edition.

THE COMPANION ANALYSIS

A substantial network—unevenly distributed

188

verified venues

120

distinct providers

32/33

authorities represented

0.99

venues per 10,000 children

Highest population-adjusted rates	
4.35	Kensington and Chelsea
2.89	Bromley
1.88	Hammersmith and Fulham
1.74	Southwark
1.69	Wandsworth

Lowest non-zero rates	
0.16	Waltham Forest
0.26	Redbridge
0.31	Lewisham
0.31	Tower Hamlets
0.36	Newham

The population comparison uses residents aged 0–17 in Census 2021.¹ Because venue evidence is dated 2026, the rate is a comparative indicator—not a contemporaneous capacity measure.

Not a quality ranking

Counts and rates do not measure coaching quality, class size, affordability, accessibility, vacancies or waiting lists.

EVIDENCE WITH BOUNDARIES

A dot is not a place in a class

A map point confirms that a qualifying programme and joining route could be verified at that venue. It does not describe the whole experience of access.

Capacity How many sessions and places exist?	Availability Is there a suitable vacancy now?	Affordability Can the family sustain the cost?
Accessibility Does the building meet the child's needs?	Timetable Can the family reach the class?	Programme fit Is it right for the child's age and experience?

Several providers may share one building. One provider may use several small halls. A dedicated facility may deliver many weekly sessions, while a school venue may host one class.

The Office for National Statistics similarly cautions that sports-facility counts do not capture capacity, attractiveness, accessibility or cost.²

RESEARCH PRINCIPLE

The map measures advertised geographic provision. It does not measure the complete opportunity available to a child.

BEYOND STRAIGHT-LINE DISTANCE

When does an opportunity become real?

01

Suitable

The programme matches age, experience and needs.

02

Usable

The time works after school and within family life.

03

Available

A place can actually be obtained.

04

Repeatable

The journey is manageable week after week.

05

Understandable

Families can identify what is offered and how to join.

London distance is measured in time as much as miles. The relevant journey often begins at school rather than at home. Traffic, changes, crowded platforms, siblings and winter evenings all alter what “nearby” means.



A class at 4.00 pm can exist without being reachable. A local programme can be suitable and popular—and still inaccessible because every place is taken.

ACCESS INCLUDES INFORMATION

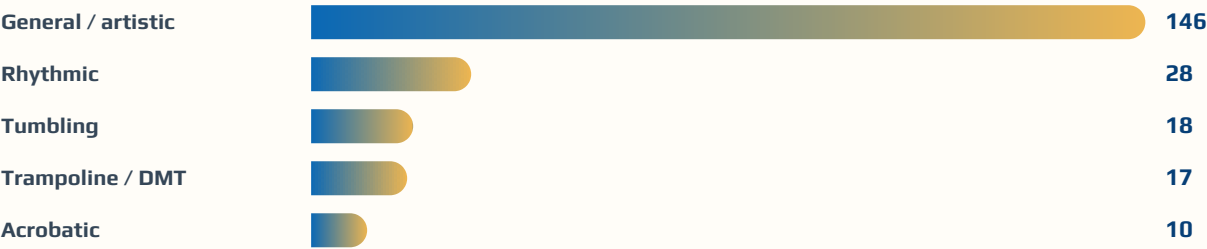
Families cannot choose an opportunity they cannot identify. Venue, age, schedule, discipline and joining route are part of access.

SETTINGS AND DISCIPLINES

Not every dot offers the same gymnastics



General and artistic gymnastics dominated the verified public descriptions, while specialist disciplines appeared across a smaller network.



Categories overlap: one venue may advertise more than one discipline. The totals must therefore not be added together.

32

dedicated or purpose-built venue records

156

shared/adapted settings or not evidenced as dedicated

A child interested in rhythmic, acrobatic, tumbling or trampoline pathways may need to search beyond the nearest general-gymnastics point.

CONTINUING THE ISSUE 2 STORY

Small and shared spaces can provide valuable gymnastics. Venue type still shapes equipment, timetable and the pathway that can be offered.

A CONNECTED LOCAL SYSTEM

Five conditions shape opportunity



A hall does not create a gymnastics programme by itself. People must recruit and support coaches, manage equipment, maintain standards and communicate with venues and families.

Sport England’s planning model compares facility supply with population demand and considers how far people may be prepared to travel. It explicitly warns that outputs should be interpreted alongside local knowledge.³

EVIDENCE BOUNDARY

Our audit shows where the geographic pattern exists. It does not prove which factor caused the result in any individual borough.

A PRACTICAL WAY TO SEARCH

Draw the map around the child’s week

Do not begin and end with the home borough. Begin with the places and times through which the child’s day actually moves.

1 Start point School, home or childcare?	2 Real travel time At the actual hour, including walking and waiting.	3 Repeatability Manageable in winter and through a busy term?	4 Programme fit Right for age, experience and needs?	5 Continuity Can learning continue if the child enjoys it?
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THE BETTER QUESTION IS NOT:

~~“Which club is closest?”~~

“Which suitable opportunity can our child reach safely, consistently and with enough energy left to enjoy it?”

This approach cannot remove unequal provision. It helps families distinguish a point on the London map from an opportunity that genuinely functions in their lives.

FOR OUR YOUNGER READERS

Your route can be different

CHELSEA SAYS

“The nearest dot is not always the right class. Look for a place where you feel welcome, can learn safely and can keep coming back.”

Children are not responsible for the opportunities surrounding them. A longer or less direct pathway says nothing about their ability.

The map is a map of possible beginnings—not a ranking of children or neighbourhoods.

CHELSEA · KENSINGTON GYMNASTICS MAGAZINE



FROM EVIDENCE TO UNDERSTANDING

Not identical boroughs—a connected pathway

The study does not imply that every borough needs an identical gymnastics facility.

Specialist venues naturally serve wider catchments, while local recreational programmes may operate closer to schools and homes. The stronger goal is connection.⁴



CLOSING PERSPECTIVE

A new evidence base for London families

188 venues · 120 providers

London has a substantial children’s gymnastics network, but advertised opportunity is distributed unevenly.

A child’s postcode may influence the pathway available. It does not define what the child is capable of becoming.

Looking ahead

The next issue will examine what families do when the right opportunity is not nearby: the travel time, cost, planning and quiet sacrifices behind a child’s weekly gymnastics class.

References

1. Office for National Statistics. (2023). *Age by single year: Census 2021, TSO07, version 3*. ons.gov.uk.
2. Office for National Statistics. (2024). *More adults are active in areas with a higher number of sports facilities*. ons.gov.uk.
3. Sport England. (n.d.). *Facilities Planning Model*. Retrieved 1 August 2026, from sportengland.org.
4. Greater London Authority. (2021). *The London Plan 2021: Policy S5, Sports and recreation facilities*. london.gov.uk.

ABOUT THIS RESEARCH

The methodology, verified venue register and dated results have been preserved by the publisher so that this research can be checked and updated. Inclusion on the map identifies publicly advertised provision; it is not a quality assessment or endorsement of an individual club.

London & the World

The World of Gymnastics

How Children Start Gymnastics Around the World

Schools, clubs, families—and why there is no single perfect first step

A child in London may first encounter gymnastics in a church hall, leisure centre, school lesson or specialist club.

Elsewhere, the first doorway may be a parent-and-child programme, a community association, a school festival or a national preschool pathway.

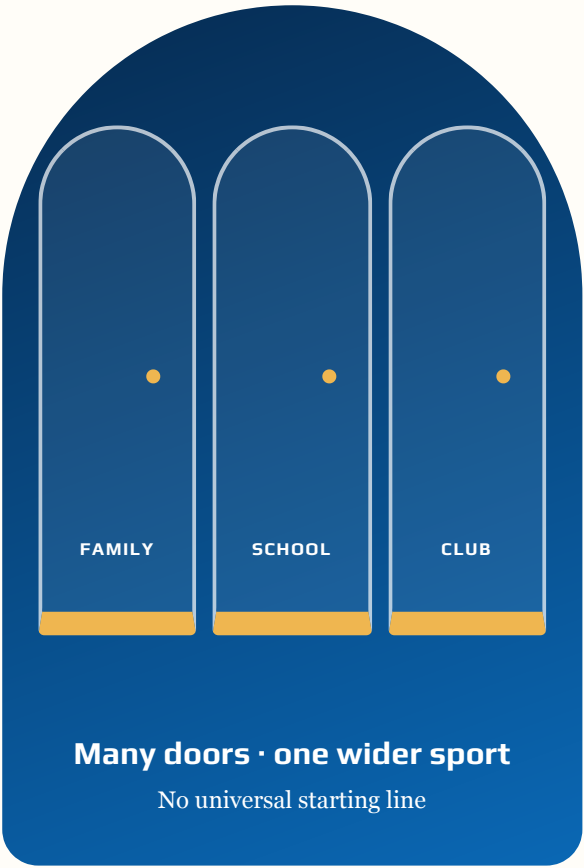
The organisation changes. The child's need for safety, encouragement and opportunity does not.

Building the series

Issue 1 · Why the sport looks different

Issue 2 · Why superpowers emerge

Issue 3 · How ordinary children begin



THE LOCAL SYSTEM SHAPES THE BEGINNING

The first class is part of a place

Gymnastics reaches children through the institutions, buildings and traditions already present in their communities.

01**Family**

Parent-and-child exploration for the youngest participants.

02**School**

Broad first exposure without a family first finding a club.

03**Club**

Continuity, coaching and a visible route forward.

04**Community**

Movement embedded in local associations and shared spaces.

A school offers reach but may have limited time and equipment. A dedicated club may offer continuity but require travel, fees and a place from a waiting list. A parent-and-child programme helps a young child enter with reassurance.

None of these routes is automatically superior. Each solves a different access problem.

WORLD REALITY

The same forward roll can be introduced in a school, leisure centre, community hall or purpose-built gym. The building changes the possibilities; people and culture shape the experience inside it.

ROUTE ONE · EARLY EXPLORATION

The first achievement may be entering happily



For many young children, the first step into gymnastics is taken beside a parent or carer.

Britain Rise Discover From walking age to school age, with parent-led and independent preschool formats.	France Baby Gym Ages 15 months to six; an accompanying adult for the youngest group.	Australia KinderGym A movement-learning experience from birth to five with active carer participation.
--	--	--

These published age bands describe programme design—not universal biological deadlines.¹²³

The shared principle is more useful: very young children often enter through exploration rather than formal skill instruction.

What may be developing?

- confidence away from home;
- basic landing and balancing experiences;
- body awareness and curiosity;
- listening, turn-taking and gradual independence.

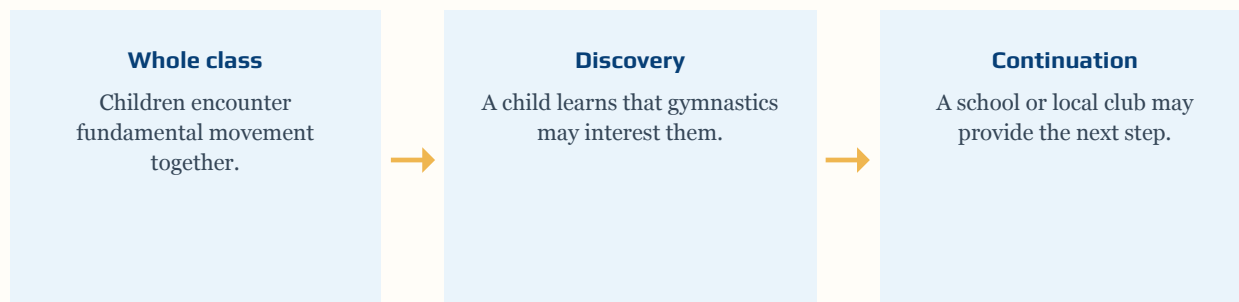
A CALMER MEASURE OF PROGRESS

At this age, the first achievement may not be a perfect roll. It may be entering the room happily.

ROUTE TWO · BROAD FIRST EXPOSURE

Schools can open a door clubs cannot

At school, a child does not first need a parent who understands the sport, finds a provider, travels and pays for a place.



British Gymnastics permits Rise delivery in clubs, leisure centres and schools, and provides a Partner School Programme.¹ Gymnastics New Zealand describes school festivals and opportunities at primary and secondary level.⁴ Gymnastics Australia's LaunchPad materials also include school programmes.⁵

Japan's national structure lists junior, student, junior-high-school and high-school bodies alongside its prefectural association network. This does not mean every Japanese child starts at school; it shows that school sport is a visible part of the wider ecosystem.⁶

THE LIMITATION

A school experience may be brief. The school can open the door; it cannot always provide the whole journey.

ROUTE THREE · LOCAL ORGANISATION

The word “club” hides many realities

A club can be a community association, a commercial provider, a purpose-built gym or a small programme hiring a hall by the hour.

Community association Gymnastics sits alongside other local activities and relies on a wide membership culture.	Independent provider Classes may be delivered across one or several hired or dedicated venues.	Specialist facility More apparatus and continuity may support wider recreational and competitive pathways.
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Germany’s federation reports about five million members across nearly 16,000 clubs. Its Kinderturn-Club brings together activities for children aged four to ten within member associations.⁷⁸

In the United States, USA Gymnastics structures preschool and recreational instructor education around locally operated member clubs, whose size, facilities and models can differ substantially.⁹

LOOK BEYOND THE LABEL

Who teaches? Is the activity appropriate? Is communication clear? Can the child participate consistently—and without unnecessary pressure?

ROUTE FOUR · A WIDER MOVEMENT CULTURE

Gymnastics is much larger than the Olympic window

World Gymnastics describes Gymnastics for All as activities suitable across ages, abilities, genders and cultural backgrounds.



Its philosophy also includes fitness, lifelong participation, performances and group contests.¹⁰

Japan describes Gymnastics for All as health-oriented activity available across ages and abilities.¹¹

Australia presents it as an entry point that includes landing, rolling and being upside down.⁵

A World Gymnastics case study from South Africa describes a national vision centred on participation, confidence and community impact amid unequal access to resources.¹²

THE WIDER MEANING

A child can begin through movement education, recreation, display, community connection or preparation for another sport. Competition is one later possibility—not the definition of the beginning.

DIFFERENT SYSTEMS · OVERLAPPING ROUTES

National labels are never the whole story

It would be misleading to label one country “school-based” and another “club-based”. Several routes normally coexist.

01

Provider

School, federation, municipality, association, charity or business?

02

Place

Dedicated gym, school hall, leisure centre or community room?

03

Purpose

Play, movement, recreation, display, discipline or competition?

04

Age

A programme range—not a deadline for the child.

05

Next step

One continuous pathway or a handover to another provider?

06

Access

Cost, travel, language, timetable, waiting list and family knowledge.

What changes is the relative visibility, availability and cultural importance of each route.

A place on a website is not the same as access.
A family must still be able to reach it, understand it, afford it and feel welcome there.

THE RECURRING MISCONCEPTION

Medals cannot identify the best beginning

COMMON ASSUMPTION

“Countries with successful Olympic teams must have the best starting system for every child.”

International achievement and broad, healthy participation are different questions.

Elite system

Identifies and prepares a very small number of high-level athletes for international performance.

≠

Children’s participation system

Must serve many ages, motivations, abilities and family circumstances.

A country can win medals while families still encounter unequal access, travel, cost or pressure. Another may win fewer medals while offering broad community participation.

Nor should the routine of an elite child become a template for a beginner in London.

SERIES PRINCIPLE

The purpose of understanding world gymnastics is not to compare children. It is to understand the sport more clearly.

WHAT DOES NOT CHANGE AT THE BORDER

Children’s fundamental needs travel with them



Systems differ. The essentials of a good beginning remain remarkably consistent.

Safety Environment, supervision and progressions suit the child and setting.	Belonging The beginner is treated as a participant—not an inconvenience.
Developmental sense The class does not imitate a miniature elite session.	Movement variety Balancing, travelling, jumping, landing, rolling, hanging and supporting.
Clear communication Families understand purpose, progress and whom to ask.	Appropriate challenge Enough structure to learn; enough safety for confidence to grow.

The final test

A reason to return

Enjoyment does not mean the absence of structure. It means enough success, curiosity and connection for the child to want another attempt.

FOR OUR YOUNGER READERS

Your beginning belongs to you

CHELSEA EXPLAINS

“Children around the world enter gymnastics through different doors. You do not need to copy somebody else’s beginning.”

Look for a place where you feel safe enough to learn, brave enough to try and welcome enough to come back.

Starting recreationally is not a lesser beginning. Beginning at school age does not mean that your opportunity has passed.

CHELSEA · KENSINGTON GYMNASTICS MAGAZINE



EVERY GYMNAST ENTERS THROUGH A
FIRST DOOR

FROM GLOBAL PERSPECTIVE TO FAMILY CHOICE

Which starting environment fits this child now?



London offers choice—but programme names do not always reveal the suitability or quality of the experience.

Observe the child Do they enter willingly? Are they noticed? Do instructions make sense?	Observe the class Is waiting managed? Are activities progressive rather than random?
Observe communication Does the provider explain the purpose and route calmly?	Observe continuity Can the family repeat the journey if the child enjoys it?

Which pathway looks most prestigious?

Which starting environment fits this child now?

A child who dislikes one environment may enjoy gymnastics through another route. Changing route is not failure.

Key takeaway

There is no single international starting line.

The strongest beginning gives a particular child safe instruction, appropriate challenge, belonging and a realistic way to continue.

CLOSING PERSPECTIVE

Many beginnings · one global story

The world of gymnastics is much bigger than any one club, country or competition. Its many starting points are part of that richness.

Looking ahead

In Issue 4, The World of Gymnastics will explore why men’s and women’s artistic gymnastics look different, how those distinctions developed and what families should understand when they watch the sport today.

References

1. British Gymnastics. *Parent Hub*. Retrieved 1 August 2026, from british-gymnastics.org.

2. Fédération Française de Gymnastique. *Baby Gym, “Téveil ludique des plus petits”*. Retrieved 1 August 2026, from ffgym.fr.

3. Gymnastics Australia. *KinderGym*. Retrieved 1 August 2026, from gymnastics.org.au.

4. Gymnastics New Zealand. *Schools*. Retrieved 1 August 2026, from gymnasticsnz.com.

5. Gymnastics Australia. *Gymnastics for All*. Retrieved 1 August 2026, from gymnastics.org.au.

6. Japan Gymnastics Association. *About JGA*. Retrieved 1 August 2026, from jpn-gym.or.jp.

7. Deutscher Turner-Bund. *Deutscher Turner-Bund*. Retrieved 1 August 2026, from dtb.de.

8. Deutsche Turnjugend. *Kinderturn-Club*. Retrieved 1 August 2026, from dtb.de.

9. USA Gymnastics. *R102: Preschool Fundamentals Theory*. Retrieved 1 August 2026, from usagym.org.

10. Fédération Internationale de Gymnastique. (2025). *Gymnastics for All Manual—2025 Edition*. gymnastics.sport.

11. Japan Gymnastics Association. *Gymnastics for All*. Retrieved 1 August 2026, from jpn-gym.or.jp.

12. Fédération Internationale de Gymnastique. *Gymnastics for All: Worldwide Experiences*. Retrieved 1 August 2026, from gymnastics.sport.

EDITORIAL EVIDENCE NOTE

This chapter compares documented examples from official federation and programme sources. It is not a systematic survey of every route in each country, and the examples are not rankings. Programme availability and delivery arrangements may change.

Understanding the Sport

The Language of Gymnastics

The Shapes That Build Every Gymnastics Skill

Tuck, pike, straddle, straight, hollow and arch—how a small movement vocabulary helps children understand a much bigger sport



A small vocabulary · a much bigger sport

Chelsea performs a straddle jump

A child comes out of class and announces that today they made a tuck, a pike, a straddle, a dish and an arch.

Their parent smiles—and quietly wonders whether those are five skills, five stretches or five entirely different things.

Some of gymnastics' most important words describe not a complete skill, but the **shape of the body inside a skill**. The setting changes; the movement idea remains recognisable.

Building the series

Issue 1 · Why gymnastics has its own language

Issue 2 · The words every family hears

Issue 3 · The shapes inside gymnastics skills

THE ESSENTIAL DISTINCTION

A shape is not the same as a skill

A **skill** is a complete action. A **shape** is how the body is organised at a particular moment.

Skill

A recognisable action with a beginning, movement and completion: a forward roll, cartwheel, handstand or jump.

Shape

A reusable body position that may appear inside many different skills, on several apparatus and at different levels.

A child may sit in a tuck, jump in a tuck, pass through tuck during a roll and later rotate in tuck. These are different tasks sharing one body-shape idea.

01

TUCK

02

PIKE

03

STRADDLE

04

STRAIGHT

05

HOLLOW

06

ARCH

07

TIGHT BODY

Official materials use the same language in introductory activities and formal competition.^{1,2,3} A beginner should never be judged as though performing an international routine. The useful connection is that an ordinary class introduces vocabulary belonging to the wider sport.

FAMILY TRANSLATION

Skill: the complete thing the gymnast does. **Shape:** how the gymnast organises the body within it.

SHAPE 01 · MAKING THE BODY COMPACT

Tuck



Hips bent · knees bent · compact and controlled

In a tuck, the hips and knees bend so the legs move closer to the trunk.

Children may first meet tuck while sitting, balancing, rocking, rolling or jumping. Later, they may recognise it during faster rotation. Formal definitions likewise describe bent hip and knee angles.^{2,3}

What the word helps organise

- bending at both hips and knees;
- bringing the legs towards the body;
- keeping the shape recognisable rather than loose;
- opening at the right moment for the next action.

What it does not mean

“Make yourself as tiny as possible” is not enough. Uneven knees, a collapsed chest or random gripping do not necessarily make the movement more effective. A child should not be forced tighter than they can comfortably control.



CHELSEA EXPLAINS

“Bend my hips, bend my knees, make the shape clear—and stay in control.”

SHAPE 02 · FOLDED AT THE HIPS

Pike



Hips folded · knees long · depth belongs to the gymnast

Pike and tuck both fold the body. The defining difference is the knees.

Tuck

Hips bent and knees bent.

Pike

Hips bent while the legs remain long.

Pike appears in sitting, stretching, jumping, rolling, circling and flight skills. International rules distinguish it from tuck through the straighter knee position.^{2,3}

That comparison is more useful than telling every child to “touch your toes”. Depth depends on flexibility, proportions and the task. The shape is defined by the hips and knees—not by identical range.

What good coaching protects

A child should not be pushed aggressively into pike for an impressive photograph. The aim is active extension, an organised trunk and calm breathing within the child’s available range.

GYMNASTICS TRANSLATION

“Show a pike” means “fold at the hips while keeping the legs long”—not “prove how flexible you are”.

SHAPE 03 · OPENING THE LEGS APART

Straddle



Legs open to the sides · knees extended · heels grounded

In a straddle, the legs open apart to the sides.

The position can appear while sitting, jumping, balancing, supporting or moving through a skill. These tasks share an open-leg idea but are not identical.

Straddle is not automatically a split

A split usually describes one leg forward and one backward, or a side split approaching a very wide line. Straddle simply says that the legs are apart to the sides. It does not promise a particular angle.

Why the shape is useful

- exploring wide and narrow positions;
- developing symmetry and active leg control;
- connecting flexibility with strength;
- recognising the shape in sitting, flight and support.

A child may open widely yet struggle to control the legs. Another may have a smaller range but show excellent alignment. Gymnastics values the ability to **arrive, hold and leave** with control.



CHELSEA'S REMINDER

"A beautiful straddle is not just wide. Both legs should look purposeful and controlled."

SHAPE 04 · A LONG ORGANISED LINE

Straight



Hips and knees extended · feet grounded

Straight sounds simple. In gymnastics, it asks many parts of the body to cooperate.

The hips and knees are extended. The legs normally stay together unless the task says otherwise. The trunk does not visibly fold into pike or close into tuck. Formal rules distinguish straight from tuck and pike through the relationship between trunk and thighs.²

Yet straight does not mean becoming a rigid wooden plank. The precise line depends on the skill, apparatus and discipline; some stretched elements may include a slight hollow or arch.

Why standing tall is only the beginning

A child may understand straight while standing, then lose it when jumping, hanging, supporting through the hands or turning upside down. The challenge is preserving the idea as gravity and orientation change.

FAMILY TRANSLATION

Everyday straight: standing upright.

Gymnastics straight: maintaining a long body line wherever the movement places you.

SHAPE 05 · THE GENTLY ROUNDED FRONT

Hollow—or dish



Shoulders lifted · legs long · arms reach forward

Families may hear *hollow*, *dish* or *hollow dish*.

These terms commonly describe a family of positions in which the ribs and pelvis draw towards one another, the lower back becomes less arched and the body forms a controlled, gently rounded line.

On the floor, the shoulders and legs may lift. In hanging, support or handstand preparation, the same organising idea appears in another orientation. Coaches may use the terms with slightly different emphasis; the useful question is what position the task requires.

Hollow is not

- pulling the stomach in for appearance;
- holding the breath;
- crushing the chin to the chest;
- flattening natural curves by force;
- becoming tense everywhere without purpose.

The objective is coordinated trunk control, not discomfort.

C

CHELSEA EXPLAINS

“Organise the front of my body so the whole shape works together.”

SHAPE 06 · OPENING THE FRONT

Arch



Arms directly beside the ears · neck long · legs joined and lifted

Arch is often taught as the companion to hollow.

In arch, the front of the body opens and the spine extends. A child may meet it lying on the front and lifting the chest or legs within a controlled range. During swinging, the body may pass between hollow and arch as part of a larger rhythm.

The word is not an instruction to force

A useful arch distributes movement through the body and fits the purpose of the skill. It is not a contest to create the deepest curve, and lower-back pain is not evidence of effort.

Hollow and arch work as a pair

- hollow organises a rounded front line;
- arch opens the front and extends the body;
- moving between them develops control through change.

The ability is not merely holding either endpoint. It is recognising the difference and moving deliberately. British Gymnastics uses dish and arch in introductory activities as well as the wider sport.¹

GYMNASTICS TRANSLATION

“Show an arch” means “open and extend with control”—not “force the deepest backbend you can make”.

A QUALITY APPLIED TO EVERY SHAPE

Tight body

“Tight” is better understood as a quality of organisation—not a seventh position.

A tuck can be organised or loose. A pike can be deliberate or floppy. A straight shape can connect from fingers to toes or look broken at several joints.

Useful tension helps the body

- maintain a chosen line;
- transfer force between body regions;
- resist unwanted movement;
- arrive in a shape at the intended moment;
- be supported more predictably by a coach or partner.

But more tension is not always better. Gymnastics also needs relaxation, rhythm, speed and change. A child who braces continuously may move less effectively.

The better question is: **Can you create the amount of tension this moment needs?** Breath-holding is never the goal.

WHAT FAMILIES OFTEN MISUNDERSTAND

Body tension does not mean fear, rigidity or discomfort. It means purposeful muscular control.

THE HIDDEN SKILL · CHANGING AT THE RIGHT TIME

Shapes do not stay still

On a page, gymnastics can look like frozen poses. In practice, the sport depends on transitions.

01

ENTER THE SHAPE

02

MAINTAIN IT

03

LEAVE ON TIME

04

PREPARE WHAT FOLLOWS

A gymnast may move from straight to tuck and back in a jump; from hollow to arch in a swing; from straddle to closed legs in support; or from pike to straight while preparing to land.

This is why children practise shapes simply before speed, apparatus or inversion is added. A familiar word reduces the number of new decisions. A child may “know” tuck on the floor yet lose it in the air: recognition develops before reliable transfer.

Floor
Shapes can be seen and felt with a stable surface beneath the child.

Bars
Familiar words must be organised while hanging or supporting weight.

Beam
A narrow base adds balance, direction and precise foot placement.

Vault and jumping
Speed makes the timing of each position more important.

Rings and parallel bars
The vocabulary combines with suspension, support and strength.

Across the gym
Context changes difficulty even when the word remains the same.

PARENT TAKEAWAY
Revisiting a familiar shape on new apparatus is not going backwards. The child is transferring an idea into a new physical problem.

THE GYMNASTICS TRANSLATION PAGE

Seven words in family language

GYMNASTICS WORD	WHAT IT MEANS	WHAT IT DOES NOT AUTOMATICALLY MEAN
Tuck	Fold at hips and knees; make the body compact.	Pull into the smallest possible ball at any cost.
Pike	Fold at the hips while keeping the legs long.	Every child must touch their toes.
Straddle	Open the legs apart to the sides.	Perform a full split.
Straight	Maintain a long, organised body line.	Become rigid or force the joints.
Hollow / dish	Organise the front into a gently rounded, connected line.	Hold the breath or pull in for appearance.
Arch	Open the front and extend with control.	Force the deepest possible backbend.
Tight body	Use purposeful tension to preserve the chosen shape.	Squeeze every muscle continuously.



CHELSEA LISTENS · WATCHES · ASKS

How families can use the words well

Understanding should make families calmer—not turn the journey home into a second coaching session. Curious questions help:

“Which shape did you use today?”

“Did tuck feel different in a jump and a roll?”

“Which was harder to hold—hollow or arch?”

“Did you use the same shape on another apparatus?”

One teacher may say *dish*, another *hollow*. Variation is not automatically wrong. Ask what the word means in that particular task.

C

CHELSEA’S MESSAGE

“Listen, watch the demonstration, try the shape and ask when you are unsure. The words become easier because your body begins to recognise them.”

CLOSING PERSPECTIVE

Small words build a map of movement

Gymnastics asks children to organise the same body in different relationships to gravity, speed, support and space.

Tuck, pike, straddle, straight, hollow and arch are small words. Together, they help children build a map. The map is not the whole sport—but without it, every new skill would feel like an entirely new language.

Recognise

See and feel the defining idea.

Control

Arrive, maintain and leave deliberately.

Transfer

Use the idea in a new physical problem.

Key takeaway

A shape is a reusable movement idea.

When children recognise and control foundational shapes, they gain words—and physical reference points—that travel across gymnastics.

Looking ahead

In Issue 4, The Language of Gymnastics will explore recurring coaching phrases: control, technique, spotting, ready position, landing, straight arms, tight legs and reset.

References

1. British Gymnastics. *Commonwealth Games: Gymnastics Activity Resources*. Accessed 1 August 2026. british-gymnastics.org.
2. Fédération Internationale de Gymnastique. *Trampoline Gymnastics Code of Points 2025–2028*. Accessed 1 August 2026. gymnastics.sport.
3. USA Gymnastics. *Glossary of Terms*. Accessed 1 August 2026. usagym.org.

EDITORIAL NOTE ON TERMINOLOGY

Shape language is not perfectly uniform across every discipline, club or country. This chapter uses widely recognisable family-facing meanings and formal definitions where useful. It does not replace the terminology or technical instruction used by a child’s qualified coach for a particular skill.

Understanding the Sport

Questions We're Asked

Practice at Home

Six clear answers about safe movement, stretching, online videos and family encouragement

Children often want to bring gymnastics home.

They balance along a line in the carpet, make shapes on the floor, stretch while watching television or suddenly announce that the sofa would be an excellent place for a new skill.

The enthusiasm is valuable. The setting, however, changes what is sensible. A living room, bedroom or garden does not become a gym simply because a child feels confident there.

The best home practice is rarely a smaller version of formal training. It is a safe extension of the habits beneath gymnastics: listening to the body, remembering familiar shapes and enjoying movement without turning family life into another coached session.

THE ANSWER BENEATH THIS CHAPTER

At home, keep movement low-risk, familiar, voluntary and close to the floor—and keep new or complex gymnastics skills inside the gym.

01 Should my child practise at home?

02 Which activities are suitable?

03 Why not learn from videos?

04 Is stretching always helpful?

05 How do we avoid pressure?

06 What if they insist?

QWA-03-01 · PRACTICE AT HOME

Should my child practise gymnastics at home?

SHORT ANSWER

Sometimes—but home practice should be limited to low-risk activities that a qualified coach has already taught and, where appropriate, agreed are suitable for that child and that space.

WHY

Repeating a familiar idea can help a child remember vocabulary, notice body position and enjoy moving between classes. But repetition is not automatically useful simply because there is more of it.

A child may repeat an error, choose a surface that changes the risk, or turn a manageable class activity into something different by adding speed, height or competition.

Home also changes the supervision. A parent may be attentive and caring, but that is not the same as being able to assess readiness, technique, fatigue, equipment and the consequences of a fall.

PARENT TAKEAWAY

More practice is not the same as better practice. The right activity, in the right setting, matters more than extra repetitions.

WHAT VARIES

The answer depends on age, experience, physical needs, the activity, the space and what the coach has taught. A calm balance or familiar floor shape is not equivalent to a handstand beside furniture, a bridge for a preschool child, or a somersault on a garden trampoline.

WHAT FAMILIES CAN DO

Ask: **“Is there anything from class that is appropriate to repeat at home?”**

A good answer may be very simple—or it may be “not this week”. Both are perfectly reasonable.

Home activity should remain optional. It should not become homework that a child must complete to prove commitment or keep pace with someone else.

SKILLS SAFETY NOTICE

Gymnastics skills should not be practised unsupervised. Many skills require qualified coaching, appropriate equipment, and a safe training environment. If you are unsure, focus on fundamentals and seek guidance from a qualified coach.

02

QWA-03-02 · PRACTICE AT HOME

Which activities are safe to repeat without equipment or coaching?

SHORT ANSWER

Choose low-risk, non-impact fundamentals: familiar floor shapes, simple balance close to the ground, gentle self-directed mobility, and ordinary active play.

WHY

The safest home activities do not try to recreate apparatus work. They preserve the movement idea while removing unnecessary height, speed and impact.

- recognising a familiar tuck, pike, straddle, straight, dish or arch shape;
- balancing on one foot with clear space around the child;
- moving slowly between familiar floor positions;
- gentle self-directed mobility within a comfortable range;
- walking, cycling, dancing, playground activity and other enjoyable movement.

UK guidance encourages varied activity across the week, including play, active travel and sport.¹

WHAT VARIES

Even a simple activity may be unsuitable because of pain, a health condition, recent injury, developmental stage or the environment. Preschool children need especially conservative boundaries. British Gymnastics identifies bridges and splits as prohibited skills for preschool gymnasts within its coaching framework.²

WHAT FAMILIES CAN DO

Floor

Remain close to a stable surface.

Space

Move away from furniture, glass and stairs.

Control

Begin, stop and leave calmly.

Passing this check does not approve a new gymnastics skill. It simply helps families recognise lower-risk movement.



FAMILIAR TUCK



FAMILIAR PIKE



FAMILIAR STRAIGHT

QWA-03-03 · PRACTICE AT HOME

Why should children not teach themselves new skills from videos?

SHORT ANSWER

A video can show what a skill looks like, but it cannot decide whether a child is ready, make the room safe, correct the movement in real time or protect them when something unexpected happens.

WHAT THE SCREEN DOES NOT SHOW

The viewer may not see the preparation before the skill, the surface beneath it, the coaches nearby, the failed attempts that were not uploaded, or the physical qualities developed over years.

Copying also changes quickly. A child may begin with a familiar action, move closer to furniture, try it from a raised surface, add speed or follow the next suggested video.

SKILLS THAT STAY IN THE GYM

- handstands and other inversions with fall risk;
- bridges or movements loading the spine, head or neck;
- rolls, flips and other rotation;
- jumps from furniture or raised surfaces;
- garden-trampoline tricks;
- any skill requiring catching, lifting or physical guidance.

WHAT VARIES

Watching gymnastics is not the problem. Videos can inspire curiosity, teach vocabulary or provide something to discuss with a coach. The boundary is between **watching to understand** and **copying to teach oneself**.

WHAT FAMILIES CAN DO

Save the video and ask the coach. The coach may explain the preparation needed, identify a safer related activity or simply say that it is not appropriate yet.

Parents should not attempt to spot a skill from a video. Spotting is a trained, hands-on coaching responsibility shaped by the gymnast, skill, apparatus and moment.

THE USEFUL SENTENCE

“That looks interesting. Let’s show your coach rather than trying it here.”

QWA-03-04 · PRACTICE AT HOME

04 Is stretching at home always helpful?

SHORT ANSWER

No. Gentle, familiar and self-directed mobility may be appropriate, but more stretching is not automatically better, and pain is not evidence that a stretch is working.

WHY

Flexibility is specific. Different skills need different ranges, and children arrive with different anatomy, proportions, experience and tolerance. A child who repeatedly forces the most visible position may not be developing the strength or control needed to use that range.

British Gymnastics describes flexibility training as gymnast-centred and coach-led. It requires positions to be entered and left in a controlled manner and says intensity should be reduced or stopped when a gymnast exceeds mild discomfort.²

WHAT VARIES

Age, disability, previous injury, pain, hypermobility and the skill being prepared for can all change the decision. Forced partner stretching and added pressure are not ordinary family activities.

WHAT FAMILIES CAN DO

- Repeat only familiar, coach-approved mobility activities.
- Let the child control their own range; do not push, sit on or pull them into position.
- Use slow, controlled movement and ordinary breathing.
- Stop if pain, tingling, numbness, dizziness or unusual discomfort occurs.
- Ask the coach before making flexibility a regular home routine.

TRAINING NOTICE

Exercises should be adapted to the individual's age, experience, and readiness. Stop if pain occurs and seek professional advice if symptoms persist.

QWA-03-05 · PRACTICE AT HOME

05 How can families encourage movement without adding pressure?

SHORT ANSWER

Protect the child's ownership. Offer opportunities, show interest and notice enjoyment or effort—but do not turn every free moment into training or every movement into a correction.

WHY

Children need space to play, experiment and rest. A parent who repeatedly asks for demonstrations, compares siblings, counts repetitions or corrects technique may unintentionally make gymnastics feel like a performance that follows the child home.

Young people speaking through the NSPCC's sport-safeguarding work emphasise listening, fun, balance and positive parental involvement; they also warn that what adults say around sport can stay with a child.³

WHAT VARIES

One child may happily show every shape from class. Another may want gymnastics to remain inside the gym. Enthusiasm can change with school, sleep, hunger, friendships and ordinary family life.

QUESTIONS THAT OPEN A CONVERSATION

"What did you enjoy today?"

"Was anything interesting or surprising?"

"Would you like to show me, tell me, or leave it until next time?"

"Do you want to move, play outside, or have a rest?"

Praise does not need to focus on being the best, most flexible or first. Calm attention, courage, kindness, persistence and honest communication are worth noticing.

FOR LONDON FAMILY LIFE

A busy school day, travel across the city and an evening class already ask a great deal of a child. Sometimes the most supportive choice after gymnastics is food, conversation and sleep—not another practice session.

QWA-03-06 · PRACTICE AT HOME

What should I do if my child insists on trying a risky skill?

SHORT ANSWER

Stop the attempt calmly and clearly. Do not negotiate while the child is in position, help them complete it, or improvise mats or spotting. Move away and agree to ask their qualified coach.

WHY

A child's confidence does not establish readiness. They may remember the feeling of a skill in the gym while missing the sprung floor, space, preparation or supervision that made it manageable.

Risk can increase when an adult reacts dramatically. A long argument beside a sofa, bed, staircase or trampoline leaves the child close to the opportunity. The priority is simple: stop, step away and make the environment ordinary again.

WHAT VARIES

A young child may need the tempting setup removed. An older child may respond to a brief explanation and a clear plan to speak with the coach.

A CALM FOUR-PART RESPONSE

1

Stop

2

Set the
boundary

3

Give the
reason

4

Agree the
next step

“Please come down and step away.”

“That skill is not for practising here. The gym has the space, equipment and coaching it needs. We can ask your coach at your next class.”

Repeated secret attempts, significant risk-taking, pain or disregard for boundaries may need a wider conversation with the coach and, where relevant, an appropriate health or safeguarding professional.

WHEN SOMETHING HAS HAPPENED

If a child falls, hits their head, reports pain or appears unwell, stop activity and obtain appropriate medical advice. For immediate danger, call 999.

A PRACTICAL FAMILY DECISION PAGE

Where does this movement belong?

The name of an activity does not decide whether it is suitable at home. The setting, risk and child matter.

Familiar and low-risk

A floor shape already taught, a simple balance close to the ground, gentle self-directed mobility or ordinary active play may be suitable when the child is comfortable and the space is clear.

Pause and ask

If the family is unsure, the activity needs correcting, or a child wants to add speed, height or assistance, stop and ask the coach before repeating it.

Keep it in the gym

New skills, inversions, rotation, flight, head or neck loading, high-impact landings, apparatus work and advanced strength belong with qualified coaching and an appropriate facility.

Stop completely

Stop when there is pain, dizziness, numbness, tingling, distress, loss of control, an unsafe environment or a child who does not want to continue.

The home-practice principle: Reduce risk rather than recreate training. Home can support movement habits and understanding without becoming a second gymnastics centre.

What families never need to provide

A substitute coach

Improvised gymnastics equipment

Forced repetitions

A test of commitment

PARENT TAKEAWAY

Reassurance, curiosity and clear boundaries are more valuable than trying to reproduce a lesson at home.

FOR YOUNGER READERS

Chelsea knows when to ask



Gymnasts do not have to prove that they are brave by trying every skill wherever they happen to be.

CHELSEA'S MESSAGE

"At home, I can remember my shapes and enjoy moving. I save new skills, upside-down skills and flying skills for the gym and my coach."

What Chelsea can do at home

- remember the names of familiar shapes;
- enjoy ordinary movement and play;
- tell her family what she learned;
- rest when her body feels tired;
- save an exciting video to show her coach.

What Chelsea does when she is unsure

She stops. She steps away. She asks.

A STRONG GYMNAST KNOWS

"Being brave does not mean trying everything wherever I am. A strong gymnast knows when to stop and ask."

That is not giving up. It is using good judgement—one of the most valuable skills gymnastics can teach.

CLOSING ANSWER

Home should support the child—not imitate the gym

The most useful home environment gives children room to be active, permission to rest, simple language for discussing what they learn, and clear boundaries around what belongs with a qualified coach.

That approach does not reduce ambition. It protects the patience from which long-term skill, confidence and participation can grow.

In one sentence

Keep movement low-risk, familiar, voluntary and close to the floor.

Keep new or complex gymnastics skills inside the gym.

Looking ahead

In Issue 4, Questions We're Asked will turn to competitions and demonstrations: readiness, nerves, family language around results and participating without pressure.

References

1. Department of Health and Social Care. *Physical activity guidelines: children and young people (5 to 18 years)*. Updated 16 July 2026. [gov.uk](https://www.gov.uk).

2. British Gymnastics. *Flexibility Training Safeguarding Policy*. Version 1, October 2024. british-gymnastics.org.

3. NSPCC Child Protection in Sport Unit. *Advice from young people: how parents can play their part in their child's sport*. Updated 3 October 2025. sport.nspcc.org.uk.

EDITORIAL SAFETY BOUNDARY

This chapter provides general educational information. It does not teach gymnastics skills remotely, assess an individual child's readiness, replace qualified coaching or provide medical advice.

Understanding the Sport

Gymnastics Myths

Progress Is Not a Race

Five familiar beliefs about speed, ability and what it means to be “behind”

Progress is one of the easiest parts of children’s gymnastics to misunderstand.

Families naturally notice visible milestones. One child achieves a skill quickly. Another needs more time. A third appears to make no progress and then, several weeks later, suddenly performs the movement with confidence.

The temptation is to turn these moments into rankings. But children do not learn as identical bodies on identical timetables. Experience, confidence, attention, strength, proportions, growth and opportunities for practice all shape what becomes possible at a particular moment.

This chapter does not suggest that progress is unimportant. It asks us to recognise progress more accurately—and to avoid mistaking speed for potential.

1 The best children learn the fastest.
SPEED ≠ POTENTIAL

2 If my child cannot do a skill yet, they are behind.
NOT YET ≠ PERMANENT

3 More training always means more progress.
MORE ≠ AUTOMATICALLY BETTER

4 Children who struggle at first will never be good.
DIFFICULTY ≠ DESTINY

5 Progress should always be quick and visible.
QUIET CHANGE STILL COUNTS

REAL PROGRESS IS RARELY A STRAIGHT LINE

1

MYTH 1 · PROGRESS AND ABILITY

“The best children learn the fastest.”

A FAMILIAR BELIEF EXAMINED CALMLY

WHY PEOPLE BELIEVE IT

Speed is easy to see. When a child understands an instruction immediately or achieves a new skill before others, that moment can look like proof of greater ability.

Classes also place children side by side, which makes comparison almost automatic.

WHAT IS ACTUALLY TRUE

Fast early learning can reflect previous movement experience, familiarity with the vocabulary, confidence, current body proportions, strength, attention—or simply recognising a similar task.

It is useful information, but not a complete forecast. Gymnastics also asks children to retain skills, reproduce them safely, adapt them, respond to feedback and continue when learning becomes less immediate.

A child who learns rapidly today may meet a slower stage later. A child who needs more explanation may build a particularly thoughtful understanding. Neither moment, alone, tells us who is “best”.

PARENT TAKEAWAY

Instead of asking who learned first, ask what became more controlled, understood or repeatable.

2

MYTH 2 · PROGRESS AND ABILITY

“If my child cannot do a skill yet, they are behind.”

A FAMILIAR BELIEF EXAMINED CALMLY

WHY PEOPLE BELIEVE IT

Skills look like milestones. When children of a similar age attend the same class, it is easy to imagine that they should reach each milestone together.

WHAT IS ACTUALLY TRUE

Readiness is specific to the child and the skill. One movement may depend on strength; another on timing, confidence, mobility, spatial awareness or several smaller actions being organised in the right order.

These ingredients do not always develop at the same speed. A child may be secure in balance and cautious in rotation, or strong in support and still learning how to coordinate a landing.

“Not yet” identifies the present learning point. It does not place the child permanently behind, and it does not guarantee when the skill will arrive. A class is not a conveyor belt on which every child reaches every movement simultaneously.

PARENT TAKEAWAY

Ask which prerequisite is developing and whether the coach sees safe, meaningful progress.

3

MYTH 3 · PROGRESS AND ABILITY

“More training always means more progress.”

A FAMILIAR BELIEF EXAMINED CALMLY

WHY PEOPLE BELIEVE IT

Practice matters, so the conclusion seems logical: if some practice helps, more must help more.

WHAT IS ACTUALLY TRUE

Practice is most useful when its quality, difficulty and amount suit the child’s age, readiness and recovery. More tired repetitions can become less accurate. Extra sessions can also compete with sleep, school, free play and the recovery that allows children to return ready to learn.

This does not make regular practice unimportant. It means training volume is not a simple progress button. Youth-development guidance places health, enjoyment, varied experience and appropriate recovery alongside sporting development.²³

The useful question is not “How can we add the most?” It is “What amount allows this child to learn well and remain healthy, engaged and ready for the next session?”

PARENT TAKEAWAY

Consistent, appropriate practice with recovery is more valuable than simply maximising hours.

This is general educational information, not a prescription of training hours. Individual programmes should be guided by appropriately qualified professionals.

4

MYTH 4 · PROGRESS AND ABILITY

“Children who struggle at first will never be good at gymnastics.”

A FAMILIAR BELIEF EXAMINED CALMLY

WHY PEOPLE BELIEVE IT

Early ease is often mistaken for fixed talent. A child who hesitates, misunderstands a shape or needs repeated demonstrations can appear less suited to the activity.

WHAT IS ACTUALLY TRUE

An early struggle may reflect unfamiliar language, limited previous experience, fear, attention, coordination, current growth or simply a movement the child has never had reason to organise before.

Motor development is shaped by the interaction between the body, the task, the environment and experience.¹ That is one reason a child can look different when the explanation, equipment, context or level of confidence changes.

Struggle does not prove future excellence either. It tells us that learning is taking work. What matters is how safely the challenge is managed: whether the child can listen, return, accept feedback and make small changes without being shamed or rushed.

PARENT TAKEAWAY

Look for willingness, understanding, safer attempts and the ability to return after difficulty—not only immediate success.

5

MYTH 5 · PROGRESS AND ABILITY

“Progress should always be quick and visible.”

A FAMILIAR BELIEF EXAMINED CALMLY

WHY PEOPLE BELIEVE IT

Visible skills are memorable. They are easy to photograph, celebrate and compare. Quiet changes attract less attention.

WHAT IS ACTUALLY TRUE

Learning is rarely a straight line. A child may practise for several weeks before a movement becomes organised. A growth spurt, break from training, new apparatus or more demanding version of a skill may temporarily make performance look less secure.

Progress also happens beneath the headline skill. It can mean listening more carefully, remembering a sequence, landing with greater control, holding a shape for longer, asking for help, managing disappointment or returning confidently after a mistake.

Some of these changes prepare the skill that families eventually see. Others are valuable outcomes in their own right.

PARENT TAKEAWAY

Use a wider window. Compare the child with their own earlier learning, not with another child's most visible moment.

A WIDER FAMILY LENS

What is visible—and what may be developing underneath?

The headline skill is only one layer of learning.

What families can see

- a new skill;
- a higher or longer shape;
- more repetitions;
- a certificate or level;
- a confident demonstration.

What may be developing underneath

- attention and understanding;
- strength and body organisation;
- confidence and judgement;
- consistency and safer landings;
- patience with correction;
- recovery and readiness.

Better questions after class

01

What felt clearer today?

02

Which part became more controlled?

03

What are you still learning?

04

What did your coach help you notice?

05

What are you proud of besides a new skill?

PLATEAUS, SMALL CHANGES AND NEW UNDERSTANDING ARE PART OF THE LINE

THE CENTRAL IDEA

Progress matters. But it is not a race, and it is not always visible on the day it is being built.

CLOSING REFLECTION

See the learner, not the ranking

Children's gymnastics contains comparison because children learn together. Good judgement begins when adults refuse to let comparison become the definition of a child.

Speed can be encouraging. It can also be temporary. Difficulty can be frustrating. It can also be part of careful, lasting learning. Neither should be turned into a label.

The most useful family perspective is calm and specific: notice what the child understands, what is becoming safer, what remains difficult, and whether the experience still supports curiosity and participation.

Progress is personal. Potential cannot be read from one class, one skill or one moment.

Looking ahead

In Issue 4, Gymnastics Myths will examine safety and injuries: including the beliefs that gymnastics is inevitably dangerous, that pain always means damage, and that children should never fall.

References

1. Adolph KE, Hoch JE. Motor Development: Embodied, Embedded, Enculturated, and Enabling. *Annual Review of Psychology*. 2019;70:141–164. doi:10.1146/annurev-psych-010418-102836.
2. Brenner JS; Council on Sports Medicine and Fitness. Sports Specialization and Intensive Training in Young Athletes. *Pediatrics*. 2016;138(3):e20162148. doi:10.1542/peds.2016-2148.
3. Bergeron MF, Mountjoy M, Armstrong N, et al. International Olympic Committee consensus statement on youth athletic development. *British Journal of Sports Medicine*. 2015;49(13):843–851. doi:10.1136/bjsports-2015-094962.

EDITORIAL BOUNDARY

This chapter provides general educational information. It does not assess an individual child's ability, readiness or training needs.

CLOSING REFLECTION

What We Understand, We See Differently

At the beginning of this issue, we asked what gymnastics may do before its most visible skills appear.

The answer has taken us far beyond a single movement.

We have looked at attention and self-control in the growing brain; at the core muscles that organise the body; at protein as one part of a child’s wider need for food and energy; and at sleep as an active part of learning and recovery.

We have considered how balance changes across life, how access to gymnastics varies across London, and how children begin the activity in different ways around the world.

We have also returned to the language families hear every week: tuck, pike, straddle, straight, dish and arch. These words give children a vocabulary for organising movement. The same is true of the wider ideas in this magazine.

When families understand what progress can look like, why recovery matters, and where safe boundaries belong, they gain a vocabulary for seeing the whole child more clearly.

Understanding does not remove every uncertainty. Research continues to develop. Children remain individual. A coach still has to make judgements in the moment, and families will still have questions.

But understanding changes the quality of those questions.

WE MAY BEGIN TO ASK

What did they learn to notice?

What became more controlled?

What helped them feel safe enough to try?

What recovery will help today’s learning settle?

What environment will help them return confidently?

Gymnastics is visible in shapes, balances, landings and skills. Its deeper value is often quieter. It lies in the gradual organisation of attention, effort, judgement and movement—and in the possibility of carrying those qualities through childhood and into later life.

What we understand, we see differently.

And when we see differently, we can support children with greater patience, clarity and care.

ISSUE 3 • END MATTER

Sources & Further Reading

A consolidated alphabetical record of the sources used throughout this issue. Chapter-local numbering has been removed; DOI and official-source links remain active in the digital edition.

A-Z

Adolph KE, Hoch JE. Motor Development: Embodied, Embedded, Enculturated, and Enabling. *Annual Review of Psychology*. 2019;70:141–164. doi:10.1146/annurev-psych-010418-102836.

Allen, D., Ribeiro, L., Arshad, Q., & Seemungal, B. M. (2016). Age-related vestibular loss: current understanding and future research directions. *Frontiers in Neurology*, 7, 231. doi:10.3389/fneur.2016.00231

Behm, D. G., Drinkwater, E. J., Willardson, J. M., & Cowley, P. M. (2010). Canadian Society for Exercise Physiology position stand: The use of instability to train the core in athletic and nonathletic conditioning. *Applied Physiology, Nutrition, and Metabolism*, 35(1), 109–112. <https://doi.org/10.1139/H09-128>

Bergeron MF, Mountjoy M, Armstrong N, et al. International Olympic Committee consensus statement on youth athletic development. *British Journal of Sports Medicine*. 2015;49(13):843–851. doi:10.1136/bjsports-2015-094962.

Brenner JS; Council on Sports Medicine and Fitness. Sports Specialization and Intensive Training in Young Athletes. *Pediatrics*. 2016;138(3):e20162148. doi:10.1542/peds.2016-2148.

British Gymnastics. *Commonwealth Games: Gymnastics Activity Resources*. Accessed 1 August 2026. british-gymnastics.org.

British Gymnastics. *Flexibility Training Safeguarding Policy*. Version 1, October 2024. british-gymnastics.org.

British Gymnastics. *Parent Hub*. Retrieved 1 August 2026, from british-gymnastics.org.

Cholewicki, J., & VanVliet, J. J. IV. (2002). Relative contribution of trunk muscles to the stability of the lumbar spine during isometric exertions. *Clinical Biomechanics*, 17(2), 99–105. [https://doi.org/10.1016/S0268-0033\(01\)00118-8](https://doi.org/10.1016/S0268-0033(01)00118-8)

Coel, R. A., Pujalte, G. G. A., Applewhite, A. I., Zaslow, T., Cooper, G., Ton, A. N., & Benjamin, H. J. (2023). Sleep and the young athlete. *Sports Health*, 15(4), 537–546. doi:10.1177/19417381221108732

Cresswell, A. G., Grundström, H., & Thorstensson, A. (1992). Observations on intra-abdominal pressure and patterns of abdominal intra-muscular activity in man. *Acta Physiologica Scandinavica*, 144(4), 409–418. <https://doi.org/10.1111/j.1748-1716.1992.tb09314.x>

Department of Health and Social Care. *Physical activity guidelines: children and young people (5 to 18 years)*. Updated 16 July 2026. gov.uk.

Deutsche Turnjugend. *Kinderturn-Club*. Retrieved 1 August 2026, from dtb.de.

Deutscher Turner-Bund. *Deutscher Turner-Bund*. Retrieved 1 August 2026, from dtb.de.

Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, 64, 135–168. <https://doi.org/10.1146/annurev-psych-113011-143750>

EFSA Panel on Dietetic Products, Nutrition and Allergies. (2012). Scientific opinion on dietary reference values for protein. *EFSA Journal*, 10(2), 2557. doi:10.2903/j.efsa.2012.2557

Fédération Française de Gymnastique. *Baby Gym, "Téveil ludique des plus petits"*. Retrieved 1 August 2026, from ffgm.fr.

Fédération Internationale de Gymnastique. (2025). *Gymnastics for All Manual—2025 Edition*. gymnastics.sport.

Fédération Internationale de Gymnastique. *Gymnastics for All: Worldwide Experiences*. Retrieved 1 August 2026, from gymnastics.sport.

Fédération Internationale de Gymnastique. *Trampoline Gymnastics Code of Points 2025–2028*. Accessed 1 August 2026. gymnastics.sport.

Food and Agriculture Organization of the United Nations. (2013). *Dietary protein quality evaluation in human nutrition: report of an FAO Expert Consultation*. FAO Food and Nutrition Paper 92. fao.org/4/i3124e/i3124e.pdf

SOURCES & FURTHER READING

Continued

G-M

Gao, B., Dwivedi, S., Milewski, M. D., & Cruz, A. I. Jr (2019). Lack of sleep and sports injuries in adolescents: a systematic review and meta-analysis. *Journal of Pediatric Orthopaedics*, 39(5), e324–e333. doi:10.1097/BPO.0000000000001306

Gautier, G., Thouwarecq, R., & Larue, J. (2008). Influence of experience on postural control: effect of expertise in gymnastics. *Journal of Motor Behavior*, 40(5), 400–408. doi:10.3200/JMBR.40.5.400-408

Great Ormond Street Hospital for Children NHS Foundation Trust. (2025). *Obstructive sleep apnoea*. gosh.nhs.uk/conditions-and-treatments. Last reviewed 31 January 2025.

Greater London Authority. (2021). *The London Plan 2021: Policy S5, Sports and recreation facilities*. london.gov.uk.

Gymnastics Australia. *Gymnastics for All*. Retrieved 1 August 2026, from gymnastics.org.au.

Gymnastics Australia. *KinderGym*. Retrieved 1 August 2026, from gymnastics.org.au.

Gymnastics New Zealand. *Schools*. Retrieved 1 August 2026, from gymnasticsnz.com.

Hecht, C., Bank, N., Cook, B., & Mistovich, R. J. (2023). Nutritional recommendations for the young athlete: current concept review. *Journal of the Pediatric Orthopaedic Society of North America*, 5(1). doi:10.55275/JPOSNA-2023-599

Hodges, P. W., & Richardson, C. A. (1997). Feedforward contraction of transversus abdominis is not influenced by the direction of arm movement. *Experimental Brain Research*, 114(2), 362–370. <https://doi.org/10.1007/PL00005644>

Howe, T. E., Rochester, L., Neil, F., Skelton, D. A., & Ballinger, C. (2011). Exercise for improving balance in older people. *Cochrane Database of Systematic Reviews*, (11), CD004963. doi:10.1002/14651858.CD004963.pub3

Japan Gymnastics Association. *About JGA*. Retrieved 1 August 2026, from jpn-gym.or.jp.

Japan Gymnastics Association. *Gymnastics for All*. Retrieved 1 August 2026, from jpn-gym.or.jp.

Khosla, S., et al.; American Academy of Sleep Medicine Board of Directors. (2018). Consumer sleep technology: an American Academy of Sleep Medicine position statement. *Journal of Clinical Sleep Medicine*, 14(5), 877–880. doi:10.5664/jcsm.7128

Kochanowicz, A., Niespodziński, B., Mieszkowski, J., Marina, M., Kochanowicz, K., & Zasada, M. (2019). Changes in the muscle activity of gymnasts during a handstand on various apparatus. *Journal of Strength and Conditioning Research*, 33(6), 1609–1618. <https://doi.org/10.1519/JSC.0000000000002124>

Kolimechkov, S. T., Petrov, L. A., Alexandrova, A. V., & Atanasov, P. S. (2016). Nutrition and physical development assessment of pre-school and primary school children practising artistic gymnastics. *African Journal for Physical Activity and Health Sciences*, 22(2:2), 565–577.

Kolimechkov, S., Miteva, S., Yanev, I., & Petrov, L. (2019). Body composition and nutrient intake of Olympic and elite rhythmic gymnasts. Abstract 1081, 24th Annual Congress of the European College of Sport Science, Prague, 3–6 July 2019.

Kolimechkov, S., Petrov, L., Alexandrova, A., Andreeva, L., & Atanasov, P. (2013). Assessment of the nutrition and physical development of pre-school and primary-school children practising artistic gymnastics. VI Bulgarian Nutrition Conference, Sofia, 17 May 2013.

Kolimechkov, S., Yanev, I., Kiuchukov, I., Petrov, L., Alexandrova, A., Zaykova, D., & Stoimenov, E. (2019). Nutritional status and body composition of young artistic gymnasts from Bulgaria. *Journal of Applied Sports Sciences*, 3(1), 39–52. doi:10.37393/jass.2019.01.4

Kumar, A., Delbaere, K., Zijlstra, G. A. R., Carpenter, H., Iliffe, S., Masud, T., Skelton, D., Morris, R., & Kendrick, D. (2016). Exercise for reducing fear of falling in older people living in the community: Cochrane systematic review and meta-analysis. *Age and Ageing*, 45(3), 345–352. doi:10.1093/ageing/afw036

Li, Y., Smith, R. M., Whitney, S. L., Seemungal, B. M., & Ellmers, T. J. (2024). Association between dizziness and future falls and fall-related injuries in older adults: a systematic review and meta-analysis. *Age and Ageing*, 53(9), afae177. doi:10.1093/ageing/afae177

Marques Filho, J. M. V., Oliveira, A. A. R., de Bruin, V. M. S., Viana, R. B., & de Bruin, P. F. C. (2025). Influence of sleep on motor skill acquisition in children: a systematic review. *Journal of Sleep Research*, 34(2), e14309. doi:10.1111/jsr.14309

SOURCES & FURTHER READING

M–Z

Continued

McGill, S. M., Grenier, S., Kavcic, N., & Cholewicki, J. (2003). Coordination of muscle activity to assure stability of the lumbar spine. *Journal of Electromyography and Kinesiology*, 13(4), 353–359. [https://doi.org/10.1016/S1050-6411\(03\)00043-9](https://doi.org/10.1016/S1050-6411(03)00043-9)

Miteva, S., Yanev, I., Kolimechkov, S., Petrov, L., Mladenov, L., Georgieva, V., & Somlev, P. (2020). Nutrition and body composition of elite rhythmic gymnasts from Bulgaria. *International Journal of Sports Science & Coaching*, 15(1), 108–116. doi:10.1177/1747954119892803

Moore, D. R., Volterman, K. A., Obeid, J., Offord, E. A., & Timmons, B. W. (2014). Postexercise protein ingestion increases whole body net protein balance in healthy children. *Journal of Applied Physiology*, 117(12), 1493–1501. doi:10.1152/jappphysiol.00224.2014

National Institute for Health and Care Excellence. (2025). *Falls: assessment and prevention in older people and in people 50 and over at higher risk* (NICE Guideline NG249). nice.org.uk/guidance/ng249.

NHS. (2023). *Sleep and young children*. nhs.uk/baby/health/sleep-and-young-children. Page last reviewed 31 March 2023.

NHS. (2024). *Physical activity guidelines for older adults*. nhs.uk.

NSPCC Child Protection in Sport Unit. *Advice from young people: how parents can play their part in their child's sport*. Updated 3 October 2025. sport.nspcc.org.uk.

Office for National Statistics. (2023). *Age by single year: Census 2021, TS007, version 3*. ons.gov.uk.

Office for National Statistics. (2024). *More adults are active in areas with a higher number of sports facilities*. ons.gov.uk.

Omorczyk, J., Bujas, P., Puszczalowska-Lizis, E., & Biskup, L. (2018). Balance in handstand and postural stability in standing position in athletes practicing gymnastics. *Acta of Bioengineering and Biomechanics*, 20(2), 139–147. PMID: 30220715.

Paruthi, S., Brooks, L. J., D'Ambrosio, C., Hall, W. A., Kotagal, S., Lloyd, R. M., Malow, B. A., Maski, K., Nichols, C., Quan, S. F., Rosen, C. L., Troester, M. M., & Wise, M. S. (2016). Recommended amount of sleep for pediatric populations: a consensus statement of the American Academy of Sleep Medicine. *Journal of Clinical Sleep Medicine*, 12(6), 785–786. doi:10.5664/jcsm.5866

Public Health England & Food Standards Agency. (2017). *National Diet and Nutrition Survey: results from years 1–4 of the rolling programme*. Revised February 2017.

Public Health England. (2016). *Government dietary recommendations*. assets.publishing.service.gov.uk

Public Health England. (2021). *McCance and Widdowson's The Composition of Foods Integrated Dataset 2021*. PHE publications gateway number GW-2010. gov.uk/government/publications/composition-of-foods-integrated-dataset-covid

Reed, C. A., Ford, K. R., Myer, G. D., & Hewett, T. E. (2012). The effects of isolated and integrated “core stability” training on athletic performance measures: A systematic review. *Sports Medicine*, 42(8), 697–706. <https://doi.org/10.2165/11633450-000000000-00000>

Scientific Advisory Committee on Nutrition. (2023). *Feeding young children aged 1 to 5 years*. Updated 23 February 2024. gov.uk/government/publications/sacn-report-feeding-young-children-aged-1-to-5-years

Sherrington, C., Fairhall, N., Wallbank, G., Tiedemann, A., Michaleff, Z. A., Howard, K., Clemson, L., Hopewell, S., & Lamb, S. (2020). Exercise for preventing falls in older people living in the community: an abridged Cochrane systematic review. *British Journal of Sports Medicine*, 54(15), 885–891. doi:10.1136/bjsports-2019-101512

Sport England. (n.d.). *Facilities Planning Model*. Retrieved 1 August 2026, from sportengland.org.

USA Gymnastics. *Glossary of Terms*. Accessed 1 August 2026. usagym.org.

USA Gymnastics. *R102: Preschool Fundamentals Theory*. Retrieved 1 August 2026, from usagym.org.

Volterman, K. A., Moore, D. R., Breithaupt, P., Grathwohl, D., Offord, E. A., Karagounis, L. G., & Timmons, B. W. (2017). Timing and pattern of postexercise protein ingestion affects whole-body protein balance in healthy children: a randomized trial. *Applied Physiology, Nutrition, and Metabolism*, 42(11), 1142–1148. doi:10.1139/apnm-2017-0185

Yeh, T.-T., Cinelli, M. E., Lyons, J. L., & Lee, T. D. (2015). Age-related changes in postural control to the demands of a precision task. *Human Movement Science*, 44, 134–142. doi:10.1016/j.humov.2015.08.021

Zhang, J., Lu, J., Sun, Y., & Li, J. (2024). Recreational gymnastics exercise of moderate intensity enhances executive function in Chinese preschoolers: A randomized controlled trial. *Psych Journal*, 13(6), 954–965. <https://doi.org/10.1002/pchj.786>

THE PERSON BEHIND THE PUBLICATION

About the Editor

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Founder & Director, Kensington & Chelsea
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COACH · SCIENTIST · GYMNAST

Dr Stefan Kolimechkov is a London-based sports scientist, gymnastics coach and active Masters gymnast. His work brings together more than two decades of coaching experience, scientific research and continued participation in the sport.

He founded Kensington & Chelsea Gymnastics Academy to offer structured progression, careful technique and evidence-informed teaching—helping children learn not only skills, but how to move well, safely and confidently for life.

FROM RESEARCH TO THE GYM

That combination shapes this magazine: evidence is checked carefully, technical ideas are translated clearly for families, and gymnastics is considered across childhood and throughout life.

“Knowledge matters most when it helps people understand what they see and experience.”

SELECTED CREDENTIALS



Doctor of Philosophy

Research on children’s physical development and nutrition in gymnastics.



More than 20 years’ coaching

Working with children, adults and families across Bulgaria and the UK.



British Gymnastics Level 3

Men’s Artistic coaching qualification, awarded in 2018.



Qualified Teacher Status

For teaching in schools in England, awarded in 2014.



Active Masters gymnast

Continuing to train and compete, with lived understanding of progression, recovery and long-term development.

PROFESSIONAL STANDARDS

Kensington & Chelsea Gymnastics Academy operates within recognised professional and safeguarding frameworks. Professional memberships include MCIMSPA (Chartered), ECSS Fellow and ACSM Member.

PARTNERSHIPS WITH PURPOSE

Support Independent Gymnastics Education

Kensington Gymnastics Magazine makes carefully researched gymnastics knowledge freely accessible to families, coaches, teachers, students and everyone interested in movement across the lifespan.

Every issue is independently researched, written and designed to explain gymnastics through evidence, professional experience and thoughtful communication.

As the magazine grows, we welcome carefully selected sponsorship and partnership conversations with organisations that share our commitment to education, children's wellbeing, healthy development and safe, evidence-informed physical activity.

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To help people understand gymnastics more clearly.

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