

Parent guide: intensive training in young athletes

A practical guide to reviewing sport load, recognising injury signals and organising rest, nutrition and recovery in children and teenagers.

Sport supports health, skills and valuable experiences. When practices, matches and other activities accumulate, the question is whether the load allows the young athlete to recover, grow and keep enjoying sport. This guide helps structure that conversation with the coach and clinician.

The focus is the young athlete's physical health. Planning figures help review training; none guarantees freedom from injury. Individual assessment considers age, maturation, intensity, history and symptoms.

Document prepared by Dr. Ricardo Vega Croker; complete adaptation for web and printed reading.

Original document: Guía breve para padres - Entrenamiento intenso en atletas jóvenes (enfoque en salud física)

Original date: 2026-01-31

Reading and print version: 3 October 2026

Includes traffic lights, a load example, a printable weekly record and questions to discuss with the team.

Before deciding: count the actual load

Sport can offer health, skills and enjoyment. This guide focuses on protecting a young athlete's physical health and helping families recognise when load exceeds recovery. More training is not always better training.

Count every organised activity: sports school, club, representative team, matches and demanding classes. Record duration, but also intensity, repetitions and travel or tournaments. The same number of hours can involve different demands.

Listen to your child: how they feel during practice, afterwards and the following morning. A schedule compatible with sleep, food, school and rest matters as much as preparation for competition.

Sources: [6]

Traffic light for load, symptoms and recovery

Use each row as a signal for discussion and decisions. Green means continue monitoring and recovery; amber means review and adjust; red means prioritise assessment or pause the activity provoking symptoms. A limp, focal bone pain, pain at rest or loss of function takes priority over a low number of training hours.

Variable	Green · routine monitoring	Amber · review	Red · assess or pause	What to do
Weekly organised sport hours	Compare hours with age and check recovery: hours $\leq$ age is a planning reference.	More hours than age, several clubs/teams or rising commitments: review the total, even without pain.	Volumes of 16-20 hours/week or more merit particular review, especially in younger children; they are not a diagnosis or universal limit.	Add practices, matches and other organised sessions. Review intensity, age, maturation, previous injury, sleep and recovery with the coach and clinician. Planning signals; observational associations, not safety boundaries. [2], [3]
Weekly rest days	Plan 1-2 days without competition or sport-specific training.	Only 0-1 rest day, or rest lost when combining teams: review the schedule.	No scheduled rest day, especially over several weeks. Do not wait for an injury.	Protect genuine rest. Replacing one session with another demanding practice does not provide a break from organised training. General AAP recommendation; individualise the schedule. [1]
Months each year in the same sport	Up to 8 months: the original guide's conservative reference for breaks and variety.	9-10 months: confirm 2-3 months each year away from that sport; the number alone does not make a plan unsafe.	11-12 months without a clear off-season: review the annual schedule.	AAP advises 2-3 months annually away from each sport; breaks may be divided. Support suitable other activities and free play while preserving rest days. Annual break supported; colour bands are the author's planning aid. [1], [2]

Traffic light for load, symptoms and recovery

Continued: further signs to guide adjustments and clinical review.

Variable	Green · routine monitoring	Amber · review	Red · assess or pause	What to do
Increase in volume or intensity	Gradual changes, maintained technique and good recovery. The original $\approx 10\%$ weekly figure is a reference, not a compulsory target.	Changes around 10-20%, crowded tournaments or simultaneous rises in volume and intensity: monitor the response.	Abrupt load changes, repeated spikes, accumulating pain or fatigue. No percentage guarantees tolerance.	Change one factor at a time, record the response and agree lighter weeks when needed. Do not increase load simply because the calendar permits it. AAP describes 10-20% as common practice; tolerance is individual. [1], [4]
Pain and function	No limp or altered technique. Record mild, brief discomfort; it is not automatic permission to continue training.	Repeated pain, pain lasting into the next day or limiting a session. The original 0-2/10 and 3-5/10 bands describe symptoms; they do not diagnose injury.	Limp, swelling, focal bone pain, pain at rest/night or loss of function: stop impact activity and arrange assessment.	Record location, timing and effect on activity. Do not wait 7-10 days when warning signs are already present or mask them with pain relief to complete a session. Clinical warning signs; no single score rules out injury. [4], [9]
Energy, growth and recovery	No concerning changes in appetite, sleep or recovery; growth followed at routine visits. Stable weight does not rule out low energy availability.	Persistent fatigue, reduced appetite, poorer performance or repeated injuries: discuss and review.	Weight loss, faltering growth, dizziness, bone stress injuries or menstrual changes: prioritise medical and nutritional assessment.	Girls and boys can be affected. Review energy needed for growth and recovery; do not start restrictive diets or diagnose REDs using this table. IOC REDs 2023; individual clinical assessment. [5]

The hour, month and pain bands are planning aids adapted from the original guide; they are not a validated diagnostic scale.

Studies have associated training more hours per week than the athlete's age with overuse injuries. The AAP explains that a universal safety threshold has not been established.

Add the volume from every team and organised activity: each coach may see only one part of the week.

Example: age 10 and 5 hours of training a day

An educational example from the original guide; it does not describe a diagnosis or a current clinical case.

With 5 hours of training each day, the total depends on how many days training takes place:

5 days × 5 h = 25 h/week

6 days × 5 h = 30 h/week

7 days × 5 h = 35 h/week

This is a high load that merits individual review for a 10-year-old, particularly if it leaves little time for sleep, meals, school, play and recovery. Comparing the total with one figure is not enough: the amount of intense activity, the breaks and the child's response matter.

- Check what each five-hour block includes: intense activity, technique, breaks or other tasks.
- Bring together the full training and competition schedule, including other teams.
- Agree on genuine rest and adjustments with the coach and clinician; high-performance programmes also need periodisation and supervision.
- Act on pain, limping or poor recovery without waiting for the season to end.

Sources: [2], [1]

When to adjust, stop or seek assessment

If pain returns each week, sleep or performance worsens, or fatigue accumulates, review the plan promptly with the coach and the clinician caring for your child. Do not treat these changes as a lack of discipline.

A 20-40% load reduction and a review after 2-3 weeks are examples of individual planning in this guide. The percentage and timing are agreed for each case; they do not justify waiting when warning signs appear.

Pause running, jumping or other impact when there is focal bone pain, limping, swelling or loss of function. Back pain with hyperextension or radiating pain also deserves assessment. Avoid repeating the painful movement to test tolerance.

After trauma, breathing difficulty, confusion, deformity, inability to bear weight or a cold/numb limb needs emergency care. Do not simply wait for a routine appointment.

Sources: [4], [9]

Physical problems we aim to prevent

Overuse injuries can develop when load is repeated without enough recovery. They may affect tendons, growth plates and bone: examples include Sever's or Osgood-Schlatter symptoms and bone stress injuries in the tibia or metatarsals. Stress injuries can also affect the lower spine, such as spondylolysis. Not every childhood ache is "growing pain".

Fatigue can make movement control more difficult. Previous injury, deteriorating technique or equipment that no longer fits should also be considered when planning effort.

Long sessions in hot conditions require planned breaks, access to fluids and adjustments to timing and intensity. Dizziness, weakness, nausea or feeling unwell during exercise in heat means stopping activity and seeking help according to severity.

Sources: [4], [10]

REDs: insufficient energy for training, growth and recovery

Low energy availability means the energy remaining after exercise is insufficient for the body's needs. Girls and boys can be affected; this is not limited to aesthetic or weight-category sports.

Watch for changes in weight or growth, persistent fatigue, repeated or bone stress injuries, changes in menstrual cycles or delayed first menstruation. Appetite or appearance alone cannot confirm or exclude the problem.

This guide does not diagnose RED-S. Arrange medical and sports-nutrition assessment when these signals appear, protecting growth, bone health and the relationship with food. The 2023 IOC consensus describes its possible effects on health and performance.

Sources: [5]

Prevention organised by impact and effort

Start with changes your family can sustain. A simple plan that is followed is more useful than a long list that does not fit the schedule.

High impact / low effort

- Protect weekly rest and record hours, pain, sleep and fatigue.
- Avoid continuing impact activities with persistent pain or a limp.
- Share one calendar across family, coaches and teams to identify overlapping sessions.

High impact / moderate effort

- Plan preparticipation assessment and routine follow-up; seek earlier advice for recurring pain.
- Review sufficient nutrition and individual bone-health needs. Calcium or vitamin D should not become a supplement prescription for everyone.
- Review footwear/equipment and technique, progressions and landings, with coaching or physiotherapy support where appropriate.

Moderate impact / greater effort

- Organise seasons, competitions and lighter weeks. The original lighter week every 3-5 weeks is a planning option, not a universal requirement.
- Consider preventive strength, mobility and movement-control work; the original 2-3 weekly sessions are an example to adapt to total load.
- Vary suitable activities to reduce repetition without filling every rest day with another demanding practice.

Sources: [4], [7]

Rest, sleep, food and strength

Taking a break from competition and structured practice does not erase all progress. Free play and suitable other activities can be part of an active life when an injury does not restrict them.

For general health, AASM recommends 9-12 hours of sleep each day at ages 6-12 and 8-10 at ages 13-18. Review regularity and quality as well; early training should not consistently replace needed sleep.

Plan meals and opportunities to eat around the sports day. Seek individual assessment when recovery, growth or the relationship with food is concerning rather than imposing restrictive diets.

Strength work can suit age and development when technique and supervision are appropriate. It is not limited to lifting weights: body control and well-taught progression matter too. Do not add prevention sessions without reviewing whether the child is already overloaded.

Sources: [8], [7], [5]

Weekly record to print and review together

Complete one row each day. Add several teams to a row or use an extra sheet. The aim is to recognise trends and prepare for a consultation, without turning the record into a test for the child.

Name or initials _____

Age _____

Sport(s) and team(s) _____

Week beginning _____

Clinician / coach _____

Review date _____

Day	Activity / team	Minutes of organised activity	Effort: easy / moderate / high	Pain: 0-10, location and timing	Fatigue and mood	Hours of sleep	Rest / notes
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday							
Sunday							

The record helps recognise trends and prepare for a consultation; it is not a self-diagnosis tool. If assessment is needed, seek care without waiting to complete the week.

Weekly summary and review

Total weekly minutes and hours

Days without organised training or competition

Change from the previous week

Repeated pain, limping or other signals

Sleep, appetite and recovery

Agreed adjustments and permitted activity

Date and reason for the next review

How to complete the record

- Record actual minutes from all organised sessions; divide the total by 60 to obtain hours.
- Describe pain before, during, after and the following day. A 0-10 score helps describe it but does not determine whether training is appropriate.
- Record matches, tournaments and preventive training: they also contribute to the load.
- Bring the sheet to the consultation if symptoms recur or the schedule needs adjustment.

Sources: [1]

Applying the guide to common situations

These situations guide discussion; they are not treatment prescriptions.

Fatigue, repeated pain or insufficient sleep accumulate

Review the schedule and reduce or redistribute the load causing problems. The original guide's 20-40% reduction and review after 2-3 weeks are examples of an individual plan, not an automatic instruction. Arrange an earlier assessment if symptoms worsen or function is lost.

Sources: [1]

Limping, focal bone pain or loss of function appears

Pause impact or painful activity and arrange assessment. Do not use jumping tests to check tolerance or painkillers to finish a session. After trauma, deformity, inability to bear weight, numbness or a cold limb needs prompt care.

Sources: [9]

Weight loss, slowing growth or repeated injuries occur

Prioritise medical and nutrition assessment. Menstrual changes in teenagers are also an important signal. These findings have several possible causes; the healthcare team determines whether low energy availability or another problem is present.

Sources: [5]

Pain at night or at rest, persistent swelling or symptoms limiting everyday life also justify consultation. Urgency depends on the context and accompanying signs.

Agree a plan that can be reviewed

Discuss what your child wants to keep doing, what feels difficult and what they enjoy. Loss of interest, irritability or feeling forced to train deserves listening alongside review of physical demands.

Ask the coach and clinician for specific guidance: permitted activities, load adjustments, signs to stop and a reassessment date or criteria. Return is based on injury and recovery, not simply the next championship.

Keep the record for family discussion and the appointment. It helps reveal patterns; it does not diagnose an injury, grade the child or establish that a green light guarantees safety.

Sources: [6], [9]

Questions for the coach and clinician

- What is the total load from every team, match and tournament?

-
- Which days provide genuine rest, and which months allow a break from sport-specific load?

-
- What changes this week: minutes, intensity, competition or new exercises?

-
- Which activity may continue and which should pause if pain appears?

-
- Who coordinates the return, and which signs call for an earlier review?

-
- Does the plan leave enough time for sleep, meals, school, play and recovery?
-

Scientific sources and official guidance

The original guide combines professional recommendations with practical rules for parents. This adaptation preserves that structure and explains the limits of numerical figures. The evidence supports individualising load and recovery; it does not establish a safe number of hours or pain score for every child.

[1] Overuse Injuries, Overtraining, and Burnout in Young Athletes

Brenner JS, Watson A; Council on Sports Medicine and Fitness. 2024. American Academy of Pediatrics. Pediatrics. 2024;153(2):e2023065129.

Weekly rest, seasonal breaks and individual review of load and recovery.

[Official source](#) · [PubMed](#) · DOI 10.1542/peds.2023-065129

[2] Sports Specialization and Intensive Training in Young Athletes

Brenner JS; Council on Sports Medicine and Fitness. 2016. American Academy of Pediatrics. Pediatrics. 2016;138(3):e20162148.

Relationships between hours, age and injury are risk signals; numerical thresholds require validation.

[Official source](#) · [PubMed](#) · DOI 10.1542/peds.2016-2148

[3] Sports-specialized intensive training and the risk of injury in young athletes: a clinical case-control study

Jayanthi NA, LaBella CR, Fischer D, Pasulka J, Dugas LR. 2015. American Journal of Sports Medicine. Am J Sports Med. 2015;43(4):794-801.

Observational associations between specialisation, weekly load and overuse injuries; it does not establish a universal safe limit.

[Official source](#)

[4] Overuse injuries and burnout in youth sports: a position statement from the American Medical Society for Sports Medicine

DiFiori JP, Benjamin HJ, Brenner JS, Gregory A, Jayanthi N, Landry GL, Luke A. 2014. American Medical Society for Sports Medicine. Br J Sports Med. 2014;48(4):287-288.

Individualise training by growth, maturation, recovery and history; overuse prevention.

[Official source](#) · DOI 10.1136/bjsports-2013-093299

[5] 2023 International Olympic Committee's (IOC) consensus statement on Relative Energy Deficiency in Sport (REDs)

Mountjoy M, Ackerman KE, Bailey DM, et al.. 2023. International Olympic Committee. Br J Sports Med. 2023;57(17):1073-1097.

Low energy availability and effects on health and performance in athletes of both sexes; individual clinical assessment.

[Official source](#) · [PubMed](#) · DOI 10.1136/bjsports-2023-106994

[6] International Olympic Committee consensus statement on youth athletic development

Bergeron MF, Mountjoy M, Armstrong N, et al.. 2015. International Olympic Committee. Br J Sports Med. 2015;49(13):843-851.

Sport development matched to growth and maturation, varied activity and the young person's participation.

[Official source](#) · [PubMed](#) · DOI 10.1136/bjsports-2015-094962

[7] Resistance Training for Children and Adolescents

Stricker PR, Faigenbaum AD, McCambridge TM; Council on Sports Medicine and Fitness. 2020. American Academy of Pediatrics.

Pediatrics. 2020;145(6):e20201011. Reaffirmed November 2024.

Age-appropriate strength work, correct technique and qualified supervision, including bodyweight exercise.

[Official source](#) · [PubMed](#) · DOI 10.1542/peds.2020-1011

[8] Recommended Amount of Sleep for Pediatric Populations: A Consensus Statement of the American Academy of Sleep Medicine

Paruthi S, Brooks LJ, D'Ambrosio C, et al.. 2016. American Academy of Sleep Medicine.

J Clin Sleep Med. 2016;12(6):785-786.

Usual recommended sleep duration: 9-12 hours at ages 6-12 and 8-10 hours at ages 13-18.

[Official source](#) · [PubMed](#) · DOI 10.5664/jcsm.5866

[9] After a Sports Injury: When to See the Doctor

Woolridge TS. 2024. American Academy of Pediatrics / HealthyChildren.org.

Patient education; updated January 17, 2024.

Distinguish sports discomfort from signs needing medical or urgent care.

[Official source](#)

[10] About Heat and Your Health

Centers for Disease Control and Prevention. 2026. Centers for Disease Control and Prevention.

Official public-health guidance; updated July 20, 2026.

General heat precautions: breaks, shade, cooler hours and hydration.

[Official source](#)

Educational guide by Dr. Ricardo Vega Croker · Review date: _____ · Clinician name / signature: _____