



— RUN  
— WORLD  
— AT ANY AGE

# Too much, too young?

As a keen runner and soft-tissue therapist, **Anna Gardiner** is delighted that her young daughters have embraced running. But with them and other young runners she sees in her clinic clocking more miles, she began to wonder – can kids have too much of a good thing?



## THE YOUNG ONES

low that my girls, Leah, 11, and Jasmine, 10, had run 300m. It was something that was a constant during the Covid lockdowns, but even from the 'time before' that would their clubs working to school runners and racing around the park with friends.

Others during lockdowns, the only time the girls ran was the 30m a day when permitted by. They were disappointed not to run before they were released. As someone who had been training for years that day's progress, I knew the feeling. As I didn't want to deprive their enthusiasm, and I was sure that their growing physical activity had helped in light of year at home messages and the importance of extra-curricular activities. But having seen children in my clinic suffering from overuse injuries, I worried whether increasing their running speeds during these three days a week would do anything other than setting them up for injury.

**A PLYING START**  
OF COURSE, AS I'm worried about my potential harm that could cause to young people from running, it's important to consider the huge amount of good it can do them. The physical benefits of running and exercise for children are numerous and well-documented. Recent studies suggest that, as well as improving cardiovascular health and weight, it also improves the type 2 diabetes and conditions associated with excessive weight gain, such as hearing loss, which is more likely to be affected by being overweight.

Research has also shown that regular exercise can enhance brain plasticity, the brain's ability to adapt and modify itself according to requirements and environmental demands. Running also helps to improve the brain's ability to adapt to stress and to improve the brain's ability to adapt to stress and to improve the brain's ability to adapt to stress.

### I often see children with overuse injuries

high-impact activities. As a physiotherapist, I see a lot of children with overuse injuries. It's not just the physical and mental health benefits of running that are important, but the social and psychological benefits of running. It's not just the physical and mental health benefits of running that are important, but the social and psychological benefits of running.

#### Red flags

These are signs that your child may be at risk of overuse injury. If you notice any of these, it's important to stop them from running and seek medical advice.

- Complaining of pain at the anterior knee, shin and heels
- Inflammation or swelling
- Moving slowly or difficulty in getting up the stairs or when walking
- Feeling unwell or tired
- Running more than four times a week
- Pushing hard in every training session
- Reluctance to train
- Consistently disappointed with performance in races

three times a week. I often see children and adolescents in my clinic with what are essentially overuse injuries.

Running around the park, in my local park, I wonder how often they're running that sort of distance and pace. This is something to be mindful of at their ages. As much as we want to get them active – particularly as Sport England found that, at the height of lockdown back in May 2020, 25% of children over the age of five were doing less than 30 minutes of activity a day – it's important to remember that their bodies are still growing. How do we gauge the balance between encouraging them to exercise to gain the physical and mental benefits of running, but without overloading their growing bodies?

**OVERUSE INJURY**  
OVERUSE MATERNITY happens over many years and is achieved when the growth plates have fused and adult bone shape and density have been attained. It's a repetitive stress on the growth plates when they're still soft and still growing could cause pain and swelling from 'bumps' or stress fractures. Fractures are also underlying structural changes and rapid growth as well as changes to body shape and weight – says Callaghan. These changes can affect the ability of the muscles and tendons to handle the load that impact activities place upon them, particularly when the tendons insert into the bone. Their bodies are already trying to adapt to normal growth changes, so they're more vulnerable to further stress. As a result, adolescents, particularly active children, are prone to medial tibial stress syndrome (a shin splint). Pain in the anterior knee or heel (antero and lateral at the heel) is also often brought about by excessive running, jumping or quick changes in direction.

There are many anatomical changes that occur with age, such as the growth plates in the spine, the knee and the hip. This is where your young runner's quadriceps attach to the tendon to the growth plate at the top of the shin bone. Repeated traction and force caused by frequent high impact in children can create microtrauma tears and inflammation, which presents as pain, swelling and a bone protrusion.

A review of Osgood-Schlatter data, published last year in the journal Current Opinion in Pediatric, suggested that predisposing factors include the age of the child (12 to 14 for boys and 10 to 13 for girls), sudden lateral growth and poor flexibility of hamstring and quadriceps. Pain is usually a dull ache at the top of the knee during running, jumping, kneeling or squatting, which worsens between sessions and hours when the activity stops.

Former Olympic long distance runner Bernard Williams once said: "If you were to be touched from an early age, had mild Osgood-Schlatter, the runner has had their growth plate in the knee. This is where your young runner's quadriceps attach to the tendon to the growth plate at the top of the shin bone. Repeated traction and force caused by frequent high impact in children can create microtrauma tears and inflammation, which presents as pain, swelling and a bone protrusion."

He turned 11 and was able to run with... kept trying to get quicker each week...

First, form. It's easy to break off a child's... or whether your child is a specialist or...

'We don't want to break young athletes'

After an assessment, I give kids some specific conditioning work for his physical and cognitive muscles...

But when we set an offspring's pace... we have to be realistic about what's possible...

PLAYING SPORTS WITH CHILDREN AND ADOLESCENTS... is important to those in line of condition...



and consider whether they're taking on too much. In my clinic, I've seen young athletes whose parents only want to make the degree to which they're pushing their bodies...

months older, generally in different stages of bone and muscle growth from where life was left off, and that going from minimal to maximal (racing down) above the body...

form. Playing other sports or doing other activities is also really important at this age. My advice is to have them play other sports...

Also, consider a personal training plan. There are recommended running mileage suggestions for different childhood ages, but each child is an individual...

Healthy habits

- Mix it up! Run on different surfaces - training on grass and off-road is more strengthening than concrete.
Make it fun! Tag, shuttle runs, relay races - they all develop fun, build fitness, encourage agility and build social relationships.
Add strength! Introduce circuits as part of drills and warm-ups. Don't forget weight with a little bit of over-kill.
Try gearwashing in your sleep! To go a little further, an unusual warm-up with plenty of natural 'recovery' breaks.
Run to feel! Encourage them not to push for fitness or push in every session, but to listen to their bodies.
Check clothes and shoes fit well! Keep an eye on growth spurts and make sure you notice one in underwear.
Minimize pressure! Remember, we want them to have a healthy lifelong love for running and exercise.