

Is it broken? A strain or sprain? How to spot a serious injury now school and sport are back

February 16 2024, by Myles Murphy



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Kids are back at school, playgrounds, sport and general mucking around. This can lead to two things: happy children and injuries.

Up to [50% of boys and 40% of girls](#) will break a bone during childhood and adolescence. Around [50,000 children and young people](#) are hospitalized due to fractures in Australia each year and the rates of fractures in children [appear to be increasing](#).

But it is not just broken bones that can hamper your children's Olympic dreams—or just disrupt their play. What are the differences between strains, sprains and fractures? And how can you identify and manage these injuries?

Different doesn't mean better or worse

Sprains, strains and fractures are all different types of injuries—and the type doesn't necessarily indicate the severity.

Sprains are injuries to ligaments and joints. So even a complete anterior cruciate ligament (ACL) rupture (when one of the ligaments of the knee is torn through) is technically a sprain.

Strains are injuries to the muscle. So whether you just pull the muscle (where the muscle is inflamed but not torn) or cause a bad tear, it is referred to as a muscle strain.

Finally, a fracture means any injury to bone. In children, whose bones are more bendy, this can vary from a small crack in the bone (sometimes called a buckle or [Greenstick fracture](#)) to a completely broken bone.

Kids are at increased risk

Children seem to be at a relatively high risk of breaking a bone (particularly of their forearm) as their bones are rapidly lengthening due to growth, and with that there is a [reduction in the overall bone strength](#).

ACL ruptures are also common in children, with the highest rise in ruptures among 5- to 14-year-old females in Australia, [increasing by 10.4% from 1998 to 2018](#).

Children's formal [sporting commitments](#) may have a role to play in why [injury rates are increasing](#). Some kids are not getting so much as a single physical recovery day per week and are training [more than elite athletes](#) while their bodies are still lanky, uncoordinated and developing. We also see [fractures from trampoline play](#), skateboarding, and [extreme sports](#) such as BMX riding.

In addition to muscle, tendon and bone injuries, children are also at risk of concussion and [clear guidelines now exist](#) to inform management of this condition.

With all that energy and commitment going into sport and play, it's not surprising some kids hurt themselves. Here's what to do next ...

Five ways to assess the severity of an injury

1. What does it look like?

Is there an obvious visual deformity or huge amount of swelling? Injuries with bigger changes in physical appearance will be much more severe.

2. Can they move it?

If they are unable to bend a joint or they are "guarding" the area and refusing to move it, it is a sign of more severe injury. Sometimes fear will prevent a child from moving the injured area—it's important not to try to force movement in the early stages, even if you think fear is an

issue.

3. Can you touch or press on the injured area?

Obviously, the more severe the injury the more likely your child will recoil with pain when being touched—or not let you anywhere near them.

4. Can your child bear weight on the injured area

For leg injuries this means can they stand or walk. For arm injuries can they use the arm to push up off the floor or out of a chair. More [severe injuries](#) prevent people from being able to bear weight. You should not try to force your child to stand or walk—but if you note them doing so, you can be more reassured the injury is less likely to be serious.

5. Is the injury improving over time?

If the injury does not seem to be changing or getting better within 24 hours it may be a more severe injury, even if the previous pointers do not suggest it is.

Now what? Top tips to manage injury

- **Do the basics well.** No matter how severe an injury may be—the [RICE protocol will be useful](#). RICE stands for rest, ice (with a pack or [cold water](#) if no ice is available), compression (with a bandage or fitted fabric) and elevation (position the body so the injury is above the level of the heart)
- **if your child has an obvious deformity** of the bone, joint or

muscle, seek medical attention as quickly as you can. The best thing to do is take them to an emergency department for assessment. They will likely need imaging (an X-ray or CT scan) to assess the bone and joint. Treatment should happen as soon as possible as injuries are often very painful and may need relocation or splinting

- **if your child is struggling to move the injured area**, you are unable to touch the sore spot or they cannot tolerate taking weight on the injured area, a review with your GP or physiotherapist as soon as possible is your best course of action
- **if your child is not improving within 24 hours**, but pain levels are not too high, an appointment with a GP or physiotherapist can still be a good idea. The injury may not be that severe, but if your child is needing to walk in an unusual way or not using their arm we want to get them back to normal as fast as possible
- **talk to your child and see what they want to do**. If the problem is lingering and they are worried about getting back to sport or play, an assessment by someone qualified (usually the GP or physio) can be very reassuring.

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