

Do you bruise like a peach?

By Paula Shingler, BSc, MCSP

I have discovered on several occasions that rocks are hard and have had multi-coloured arms and shins to show for it. But what are bruises?

When does a bruise become a haematoma? How do we reduce their size, colour and the pain they cause?



Bruise vs haematoma

Bruises occur when there is a force against the body - either something falling onto or you falling against. This causes small blood vessels to break open and leak blood under the skin. The reddish discolouration is blood under the skin and the colour changes to purple or black when the iron in the blood changes. Over time, usually 8-9 days, the bruise becomes yellowish and gradually will be reabsorbed and fade back to normal.

A haematoma is a pocket of blood that collects outside the vessels. It forms a pool and gathers in the body cavities. Superficially it can look like a bruise but the difference is that a haematoma is usually hard; also there may be no external signs of a haematoma except swelling.

There are 2 types of haematoma:

1 Intramuscular - inside the muscle sheath (covering of muscle) and contained within this. A more serious condition as the blood is trapped and if bleeding continues or restarts can cause huge amounts of pressure. If left untreated this can cause a 'compression syndrome', which can lead to nerve and muscle damage if the pressure is not released surgically. This is a relatively uncommon condition and is usually after a fracture or actual surgery.

2 Intermuscular - the sheath is torn so the pocket of blood is not as contained. This can cause more widespread swelling but the pain will reduce greatly after 24 hours.

Diagnosis of a haematoma needs to be done by MRI scan to see the extent of the injury. Also, as they are normally deep within tissues, it is otherwise impossible to see.

No matter the extent of the injury the initial treatment is the

Treatment

same. In the acute (24-72 hours) period the normal RICE treatment is used.

- Rest - to decrease bleeding and circulation.

- Ice - to cause vasoconstriction (narrowing of the blood vessels) so decreasing blood flow, swelling, metabolism and spasm.
- Compression - research has shown that this can reduce intramuscular blood flow by 50% in athletes so well worth putting on that elastic bandage.
- Elevation - gravity aids venous return so helping remove swelling.

After 72 hours:

- Gentle heat and massage round the outside of the bruised area to increase the circulation.
- Ultrasound - theoretically this helps increase cellular activity promoting healing but this is not proven, although it does also have heating properties which are helpful.
- Exercise - active range of movement exercises, static muscle work, followed by resisted muscle work.

Anti-inflammatory medication can be very useful too. Severe bruising and haematomas can benefit from more treatment. Physio can be helpful to ensure you regain full movement and strength, reduce swelling and speed a return to normal. A deep bruise will take up to 4 weeks to resolve properly, leaving you weak, stiff and vulnerable to falling, hitting another rock and starting the whole process again!

Risks of not treating your sore spots

An untreated bruise will take longer to resolve but an untreated haematoma can cause ongoing issues. The pool of blood can become organised and fibrous, or can calcify and become solid. This can impede muscular movement which will be a problem. In the very worst cases this needs to be surgically excised - not ideal!

So I guess the answer to bruises is to start your RICE treatment ASAP and, if the pain persists more than 48 hours or intensifies, seek medical help. We are all going to get bruises, which is part of our sport, unless you want to wear substantial padding!



Paula Shingler is a Physiotherapist, running her own business 'Running Right', and is a long time member of Big Foot Orienteers, keen fell runner and mother of 2