

IS IT POSSIBLE TO PREVENT BRUISING?

While prevention of bruising is not entirely possible, some of the treatment measures mentioned above may speed up the body's natural healing process.

The best way to attempt to prevent a bruise, is to prevent the injuries that cause them. Whilst not always possible or practical, some of the measures below may assist:

- Wear appropriate protective gear when playing contact sport
- Keep walkways in the home free of furniture and clutter
- Make sure rugs are slip resistant
- Do not walk in socks or stockings
- Ensure stairs are well lit with hand rails where necessary
- Install grab bars in and around bathroom facilities if needed
- Keep a torch next to your bed

PRE-OPERATIVE CONSIDERATIONS:

Please avoid aspirin, over-the-counter and homeopathic products aimed at reducing bruising, prior to elective surgery. These can have the opposite effect and may cause intra-operative complications.



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Drs Du Buisson, Kramer, Swart, Bouwer Inc./Ing.



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BRUISING

WHAT IS A BRUISE?

A bruise occurs when blood leaks out of the small blood vessels beneath the skin, building up in the surrounding tissue.

Bruises can occur in any area of the body and may result from a small superficial injury to the skin itself or may be a sign of a deep trauma to an underlying bone/muscle. Bruises do not blanch under pressure and can be painful to touch.

Other names for a bruise: contusion, haematoma

HOW DOES A BRUISE HEAL?

Bruises naturally heal over the course of days to weeks, dependant on the site of the bruise and extent of the initial traumatic event. Bruises are visible until the body absorbs the blood or until the immune system clears it away. These processes result in the various colour changes noted during the healing process.

- **Red:** A fresh bruise is normal red in colour as a result of the blood trapped under the skin
- **Purple-black:** This occurs ~1-2 days later. The red blood cells contain a molecule called haemoglobin which seeps out of the red cells and causes the purple-black discoloration.
- **Green:** This occurs ~5-7 days later. The body slowly degrades the haemoglobin molecule into a green pigment known as biliverdin.
- **Yellow:** This occurs ~7-14 days later. Biliverdin is broken down into a yellow pigment known as bilirubin.
- **Golden brown:** Bilirubin is broken down into a golden brown pigment known as haemosiderin.

These colour changes assist medical workers in determining the age of a bruise which is often useful in forensic cases.



TYPES OF BRUISES

Bruises vary in size, from tiny "pin-prick" like lesions to big bruises covering large, contiguous areas of the skin. The size of the bruise is often a good indication of the underlying cause.

- **Subcutaneous bruises:** bruising that occurs right beneath the skin
- **Intramuscular bruises:** bruising in the underlying muscle tissue
- **Periosteal bruises:** bruises on the tissue immediately surrounding the bones

WHO GETS BRUISES?

The extent of bruising depends on the following factors:

- The strength of the skin involved in the trauma e.g. facial skin is thinner than the skin found on your limbs
- Underlying medical conditions e.g. bleeding disorders, platelet disorders
- Nutritional deficiency e.g. Vitamin C deficiency (scurvy)
- Current medication e.g. blood thinners (Warfarin, Ecotrin, Aspirin)

While anyone can get a bruise following an injury, some people bruise more easily than others. As an example, the elderly bruise more readily because the blood vessels and skin become more fragile with increasing age.

WHEN SHOULD A BRUISE WORRY ME?

Most bruises are self-limiting and resolve spontaneously with minimal medical intervention. In the following situations, you should consider seeking advice from your medical practitioner:

- Recurrent bruising
- Severe bruise from a relatively minor incident
- Bruising with no identifiable traumatic event
- Unexplained bruising in unusual areas
- No noticeable improvement after 14 days
- If the bruise is swollen and very painful
- If the bruise is associated with a fever

- If the bruise limits mobility of a joint or is worrying for an underlying bone fracture
- If the bruise is near your eye and is associated with pain on eye movement or loss of vision
- No noticeable improvement after 14 days

TREATMENT

- **ICE:** Immediately after an injury, apply a cold compress such as ice, intermittently to the affected site. This will reduce blood flow to the area and as a result the size of the bruise will be smaller, the swelling will be reduced and there will be less pain from inflammation. Ice should not be applied directly to the skin.
- **ELEVATION:** Where possible, the affected area should be elevated above the level of your heart. This will prevent blood from pooling in the affected area.
- **ANALGESIA:** If required, a mild analgesic can be used for pain e.g. paracetamol. Aspirin should be avoided, where possible, as this retards blood clotting and may increase in size of a bruise.
- **HEAT:** After 48 hours, mild heat (e.g. warm water bottle, warm towel) may be applied to the bruised area. This helps to increase the blood flow to the affected area which, in turn, allows the blood from the bruise to be reabsorbed faster.

BRUISED SKIN STAGES

