About Bruising

Rugby players will inevitably suffer bruising. In the majority of cases the bruising resolves with no further adverse effects. Bruises (sometimes called contusions or ecchymoses) may occur anywhere on the body surface and within muscles. In rugby the main cause is the body coming into contact with another person or object. If the collision is severe enough, small blood vessels break or are damaged. As a result red blood cells leak into the tissues under the skin, causing swelling, discolouration and pain.

As the body disposes of the red blood cells in the skin, the bruise goes through a series of striking colour changes. This occurs as a result of the breakdown of the pigment in the red blood cells (haemoglobin), ultimately into a yellowish pigment that can then be reabsorbed into the bloodstream and passed out of the body into the bowel via the liver. Depending on the initial impact and the resulting size, a typical bruise usually persists for about two weeks.
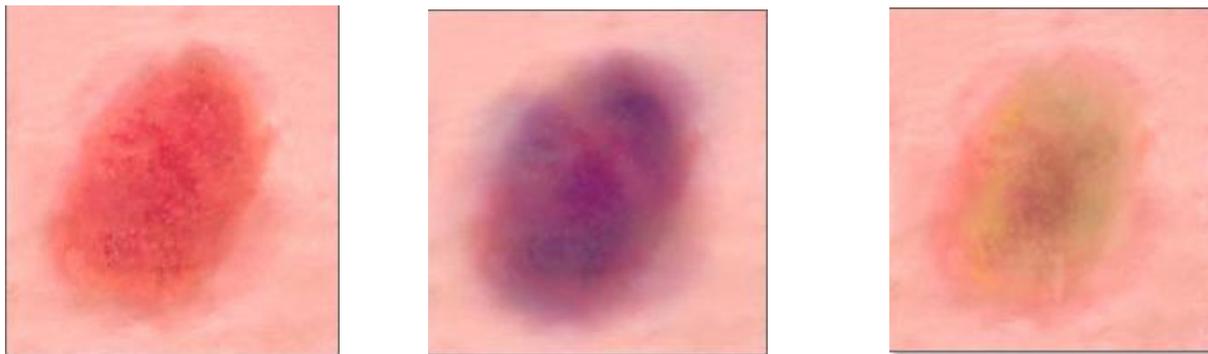
- ▪ **Day one** - reddish and/or purple
- ▪ **Day three** - blue and/or blackish
- ▪ **Day six** - green and yellow
- ▪ **Day eight** - yellow and brown
- ▪ **Day ten** - light brown
- ▪ **Day fourteen** - gone

Complications

If the bruise does not resolve within two weeks, and also has possibly become larger or more painful, it may have turned into a haematoma. This occurs when the body 'walls off' the area instead of trying to clear it, leaving a cyst of blood in the area. Most haematomas resolve in time, but it is best to get it checked by a doctor or nurse. Occasionally, and especially in large muscle groups(e.g. thigh from a 'deadleg'), an unresolved haematoma may turn into fibrous tissue which may then subsequently be invaded with bone forming cells. This results in a hard pellet forming within the muscle (myositis ossificans), which can then become a source of irritation (called a 'charley horse', for example, if located in the hamstrings) and possibly require surgical intervention.

Health Problems

Some drugs or medications can cause the skin to bruise more easily. These include non-steroidal anti-inflammatories such as ibuprofen, and also warfarin, prescribed to patients as ablood thinning agent, can cause severe bruising. Steroid(e.g. cortisone) medications can make the blood vessels very fragile, and so bruises can occur after even minor bumps. Those with clotting problems due to haemophilia or cirrhosis of the liver can develop extensive bruising.

Treatment

There are a few things that can be done to keep the bruising to a minimum;

- <u>No massage or firm rubbing</u> directly over the area for the first 72 hours
- A cold compress or icepack on the area can help by reducing the size of the blood vessels, so preventing them from leaking so much; this also helps to relieve the swelling.(see ice pack application sheet)
- As with any bleeding, raising the bruise above the level of the heart as it forms can slow bleeding.
- Cream containing <u>vitamin K</u> can be applied to the skin to help fade and clear bruises. This helps the blood vessels to heal themselves, and supports the body's ability to reabsorb blood into surrounding tissue.
- <u>Witch hazel tincture</u> applied locally may help
- Dark swollen bruises may benefit from <u>arnica</u>, a plant that has pain relieving and healing properties. Applied as a cream or gel to the bruise every three hours will encourage healing, and help improve the swelling, stiffness and discolouration.
- <u>Hirudoid ointment</u>,often used by boxers, may help dispersal of the bruise if used in the first few days, applied locally 2-3 times daily
- Hot & Cold applications may help disperse the bruising more quickly after the first 48 hours(see Hot & Cold application sheet)

When to seek help

- The injury is due to severe trauma
- There are bruise marks that do not resolve with time
- Significant bruising occurs with minimal or no injury
- The bruise is a result of a recent procedure or surgery
- There is severe pain, redness, swelling or warmth to touch accompanying the bruise