

## Bruising Overview

### Dating of Bruises

Historically, experts have opined that the age of bruises is associated with the color of the bruise. Current literature indicates there is little correlation between the color of a bruise and its age. As an example, bruises can demonstrate red color anytime from onset to 6 weeks of age; previously red was thought to be seen only in “fresh” bruises that were less than 48 hours old. Similarly, green, yellow and brown colors can be seen after 18-24 hours; these colors were previously associated with “old” bruises that were at least one week old.

**Current best practice recommendation is to avoid attempting to date bruises by color.** (Langlois & Gresham, 1991) (Bariciak, Plint, Gaboury, & Bennett, 2003) (Mosqueda, Burnight, & Liao, 2005) (Nash, 2009) (Grossman, Johnston, Vanezis, & Perrett, 2011) (Lecomte, Holmes, Kay, Simons, & Vintiner, 2013) **Therefore, the presence of the bruise does not provide any indication of when the injury occurred.**

### Appearance of Bruises

The timeline and coloration of a bruise is affected by many factors, including depth of injury, the underlying structures, natural skin tone, and underlying medical conditions. Bruises may appear instantaneously or can take up to two days for the extravasated blood to rise to the surface and become apparent to the observer. Thus, superficial bruises are more likely to appear quickly than the deeper bruises. (Langlois & Gresham, 1991) (Kostadinova-Petrova, Mitevaska, & Janeska, 2017) Bruises on fair-skinned people may be more obvious, but there is no current literature to show that they are more *prone* to bruising. Both the elderly and children are more easily bruised than healthy adults because of thin or delicate skin. Additionally, the elderly population are more likely to be taking blood thinning medications and children have more adipose tissue (fat): Both factors contribute to an increase in bleeding which in turn may increase the size or visibility of a bruise. (Nash, 2009)

### Patterned Injury

In some instances, the cause of a bruise may be identified by the pattern it exhibits, known as a “patterned injury.” These bruises may approximately match the size and shape of the object that caused them, and a visible pattern will be present. The pattern may be the shape of the object, or an imprint of a texture on the object’s surface. There is some evidence to show that light objects impacting at high speeds, such as a hand slap, cause the oscillation of the tissues at the impact site: These oscillations may play a role in the appearance of patterns. (Harris & Flaherty, 2010)

## Glossary of terms

### **Contusion:**

A contusion, commonly called a bruise, is a discoloration of the skin that results from the bursting of blood vessels under the skin, due to impact with a blunt object. Contusions heal on their own within 2-6 weeks and do not result in any long-term complications.

### **Ecchymosis:**

This is another term for the discoloration on the skin commonly called bruising. Ecchymosis, however, is not due to direct trauma to the area. The discoloration is caused by the pooling of blood from another source. An example of ecchymosis is the bruising often seen after a surgery.

***Note: Many medical providers will use the term contusion interchangeably with ecchymosis. The use of the term “ecchymosis” in the medical records does not necessarily exclude blunt force trauma as a mechanism.***



## Works Cited

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