

Chumash treatments for broken bones and sprains

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The treatment of broken bones requires resetting the break and immobilizing the break. Resetting the bone straight in place allows it to heal correctly. Immobilizing, such as with a cast, gives the bone a chance to mend. If a compound fracture occurs, with breaking of the skin, the area must be washed with soap and water to remove possible infective bacteria. Soap is derived from the roots of Our Lord's candle, *Yucca whipplei*, or the roots of soap plant, *Chlorogalum pomeridianum*, that contain saponins. Soap can also be produced from the flowers and berries of chaparral whitethorn, *Ceanothus leucodermis*, that produce lather when rubbed between the hands with water.

Resetting a fracture sometimes involves just pulling on the bone to allow it to reset. For very painful fractures, an anesthetic made from nightshade, *Solanum douglasii* can be used to reduce the pain of pulling on the bone. *Solanum douglasii* contains steroidal anesthetic agents. Momoy, *Datura wrightii*, can also be used as an anesthetic agent when resetting bones. Momoy, sometimes called sacred Datura, contains scopolamine. The use of anesthetics is very dangerous to patients and requires special training.

Broken or bruised bones should be treated by poulticing with *Anemopsis californica*, yerba mansa. The area is lightly wrapped with the leaves of yerba mansa and is lightly bound in place with a cloth. Yerba mansa contains a number of monoterpenoids that are pain relievers and may have antiinflammatory activity. Yerba mansa may speed the healing of broken and bruised bones.

Casts are made from tule, *Scirpus acutus*. Tule stems are wrapped along and around the broken bone in several layers. String, made from dogbane, *Apocynum cannabinum*, is used to hold the layers together. The layers are glued together and strengthened with glue made from asphaltum, pine sap and the root of the soap plant. Asphaltum is tar from the beach. The three ingredients are heated in a soapstone bowl near the fire until the glue blends into a thick, black paste. The hot glue is carefully applied to the tule stems to form a hard, black cast. The cast must not be applied so tightly that it cuts off blood flow to the limb. This can cause loss of the limb. The cast is left in place for several weeks until the bone mends.

Sprains result from overstretching ligaments, especially in the ankles and knees. The best treatment is frequently rest, ice, compression and elevation. If ice is not available, cold water can work well. Cold treatments should be performed for about 5 -10 minutes followed by 10 – 20 minutes of recuperation before the next cold treatment. Compression can involve carefully wrapping the area with deer skin or compression bandages. Compression should be mild and should not cut off blood flow to the area. Elevation involves propping the sprained area up above the level of the body and should be performed for about 10 minutes for each treatment. Sagebrush tincture can be used as a pain

reliever in sprains and broken bones. Sagebrush tincture is discussed under arthritis treatments.

Raw hide should never be used to wrap breaks or sprains. Wet raw hide shrinks and cuts off circulation in the limb. This frequently leads to the loss of the limb.

James Adams and Cecilia Garcia have authored several articles on Chumash healing in medical journals. James Adams is an Associate Professor of Pharmacology at the University of Southern California. Cecilia Garcia is a Chumash Healer. They teach a course in Chumash healing to the Pharmacy Students at the University of Southern California. They have also written a book "Healing with medicinal plants of the west – cultural and scientific basis for their use" that is no longer in print. They are interested in writing a second edition of the book.