Contusion (Bruise) of Hand

Injury to the hand causes bruises (*contusions*). Contusions are caused by bleeding from small blood vessels (*capillaries*) that allow blood to leak out into the muscles, cord like structures that attaches muscle to bone (*tendons*) and/or other soft tissue. Contusions of the hand are common because of the use of hands in many activities. Signs of hand injury include pain and swelling. Initially the skin may turn blue to purple in color. As the bruise ages, the color turns yellow. Swelling may decrease the movement of the fingers. Bruises are seen more commonly with:

- Contact sports.
- Use of medications that thin the blood *(anti-coagulants)*.
- Use of and aspirin and non-steroidal anti-inflammatory agents that decrease the clotting ability.
- Vitamin deficiencies.

DIAGNOSIS

Diagnosis of hand injuries can be made by your own observation. If problems continue, a caregiver may be required for further evaluation and treatment. X-rays may be required to make sure there are no broken bones *(fractures*). Continued problems may require physical therapy for treatment.

RISKS AND COMPLICATIONS INCLUDE:

- Extensive bleeding that can lead to disability if calcium deposits form that later injure the function and movement in the hand.
- Infection of the hand if there are breaks in the skin. This is especially true if the hand injury came from someone's teeth. This can lead to infection of tendon sheaths that can have severe complications including a “frozen” hand with loss of function.
- Rupture of the tendons requiring a surgical repair. Failure to repair the tendons can result in loss of function of the hand or fingers involved.

HOME CARE INSTRUCTIONS

- Apply ice to the injury for 10 to 20 minutes, 3 to 4 times per day. Put the ice in a plastic bag and place a towel between the bag of ice and your skin.
- Gentle massage from the fingertips towards the elbow will help keep the swelling down. Gently open and close your fist while doing this to maintain the range of motion.
- Keep your hand above the level of the heart when swelling and pain are present.
- Try to avoid use, other than gentle range of motion, while the hand is painful. Do not resume use until instructed by your caregiver. Then begin use gradually, do not increase use to the point of pain. If pain does develop, decrease use and continue the above measures, gradually increasing activities that do not cause discomfort until you achieve normal use.
- Only take over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver.
- Follow all instructions for follow-up with your caregiver. Follow-up may include orthopedic referrals, physical therapy and rehabilitation. Any delay in obtaining necessary care could result in delayed healing, and temporary or permanent disability.

DIET

During recovery, eat a well-balanced diet that includes extra protein, such as meat, fish, poultry, cheese, milk and eggs. Your doctor may prescribe vitamin and mineral supplements to promote healing.

REHABILITATION

- Begin daily rehabilitation exercises when supportive wrapping is no longer needed.

- Use ice massage for 10 minutes before and after workouts. Fill a large styrofoam cup with water and freeze. Tear a small amount of foam from the top so ice protrudes. Massage ice firmly over the injured area in a circle about the size of a softball.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your pain and swelling increase, or pain is uncontrolled with medications.
- You have loss of feeling in your hand, or your hand turns cold or blue.
- An oral temperature above 102° F (38.9° C) develops, or as your caregiver suggests, which is not controlled by medication.
- Your hand becomes warm to touch, or you have more pain with movement of your fingers.
- You have a hand contusion that does not improve in 1 or 2 days.
- Skin is broken and signs of infection occur (drainage, increasing pain, fever, headache, muscle aches, dizziness or a general ill feeling).
- You develop new, unexplained problems, or an increase of the symptoms that brought you to your caregiver.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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