

hygiene may be needed to minimize trauma to the gums, such as use of a water irrigating device, softening the toothbrush in warm water before brushing, or using a sponge-tipped disposable toothbrush. A regular toothbrush should be soft bristled and small.

Because any trauma can lead to a bleeding episode, all persons caring for these children must be aware of their disorder. These children should wear medical identification, and older children should be encouraged to recognize situations in which disclosing their condition is important, such as during dental extraction or injections. Health personnel need to take special precautions to prevent the use of procedures that may cause bleeding, such as IM injections. The subcutaneous route is substituted for IM injections whenever possible. Venipunctures for blood samples are usually preferred for these children. There is usually less bleeding after the venipuncture than after finger or heel punctures. Neither aspirin nor any aspirin-containing compound should be used. Acetaminophen is a suitable aspirin substitute, especially for controlling pain at home.

### **Recognize and Control Bleeding**

As noted, the earlier a bleeding episode is recognized, the more effectively it can be treated. Factor replacement therapy should be instituted according to established medical protocol, and supportive measures may be implemented, such as **RICE**, which stands for *rest, ice, compression, and elevation*. When parents and older children are taught such measures beforehand, they can be prepared to initiate immediate treatment. Plastic bags of ice or cold packs should be kept in the freezer for such emergencies. However, such measures do not take the place of factor replacement.

### **Prevent Crippling Effects of Bleeding**

As a result of repeated episodes of hemarthrosis, incompletely absorbed blood in the joints, and limitation of motion, bone and muscle changes occur that result in flexion contractures and joint fixation. During bleeding episodes, the joint is elevated and immobilized. Active range-of-motion exercises are usually instituted after the acute phase. This allows the child to control the degree of exercise according to the level of discomfort. If an exercise program is instituted in the home, a physical therapist or public