

Chapter 10

MUSCULOSKELETAL COMPLICATIONS

Adolfo Llinás, Pradeep M. Poonnoose, Nicholas J. Goddard, Greig Blamey, Abdelaziz Al Sharif, Piet de Kleijn, Gaetan Duport, Richa Mohan, Gianluigi Pasta, Glenn F. Pierce, Alok Srivastava

Musculoskeletal Complications: **WHAT YOU NEED TO KNOW**

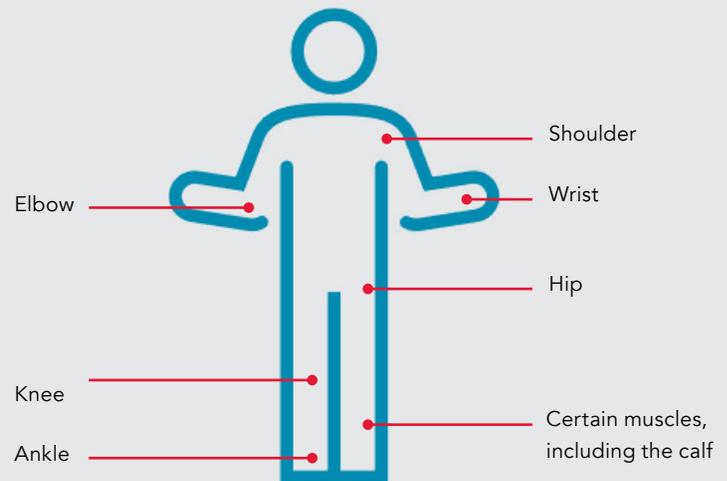
JOINT BLEED PROGRESSION AND TREATMENT GOALS

1 Bleeding into the joints is called **hemarthrosis**.

2 Repeated joint bleeds can cause the lining of the joint capsule (the *synovium*), to become inflamed (**synovitis**). Synovitis becomes **chronic** if not treated.

3 Over time, bleeding and inflammation can lead to permanent joint damage called **hemophilic arthropathy**.

Common sites of bleeding in hemophilia



The main characteristic of hemophilia is **acute bleeds**.

 **More than 80%** of acute bleeds in hemophilia occur in specific joints and muscles.

Prophylaxis to prevent bleeding episodes is considered the standard of care.

TREATMENTS

Chronic Synovitis

To recover complete function after a muscle or joint bleed, you will usually need both:



6-8 wks prophylaxis
(if not on prophylaxis)



Physical therapy

Consultation with an experienced musculoskeletal specialist is recommended; and nonsurgical synovectomy may be recommended.

Chapter 10 MUSCULOSKELETAL COMPLICATIONS

OTHER MUSCULOSKELETAL COMPLICATIONS OF HEMOPHILIA INCLUDE:

Muscle bleeds

Bleeding into a muscle, or *muscle hemorrhage*, can occur in any muscle of the body, and is often the result of an injury or a sudden stretch.

Symptoms include discomfort, pain, and/or swelling.

Untreated muscle bleeds can lead to *compartment syndrome* which can cause tissue damage, muscle shortening, and muscle death.

Pseudotumours

Pseudotumours are potentially limb and life-threatening conditions that occur because of inadequately treated soft tissue bleeds.

Untreated pseudotumours can become very large and may put pressure on nearby bones, nerves, and vessels.

Fractures

Fractures are not common in patients with hemophilia, but you may be at risk of a fracture:

- In bones that are osteoporotic, or
- Near a joint with significant loss of motion.

WHAT WILL YOUR DOCTOR DO?

Treat your bleed immediately with clotting factor replacement therapy.

Assess your pain frequently.

Monitor you continuously for possible compartment syndrome (a deep muscle bleed within a closed space).

Small early pseudotumours may be treated with a short course of clotting factor replacement therapy.

Large pseudotumours may be surgically removed.

Treat you immediately with clotting factors or other hemostatic agents.

Work to **restore range of motion, muscle strength, and function** as soon as possible with the help of physical therapy and rehabilitation.

PSYCHOSOCIAL SUPPORT CAN HELP IMPROVE YOUR QUALITY OF LIFE



Healthcare providers can help develop **personalized strategies** to meet your physical, emotional, social, educational, and cultural needs.

Strategies may include **psychosocial counselling, educational and employment counselling, and financial planning.**