NATIONAL HEMOPHILIA FOUNDATION
for all bleeding disorders

Physical Therapy Practice Guidelines for Persons with Bleeding Disorders:

Surgical Synovectomy

The following practice guidelines were developed through the consensus of therapists that work with patients with bleeding disorders and edited by the National Hemophilia Foundation's Physical Therapy Working Group. The information contained in the practice guidelines is not intended in any way to be used as primary medical advice or to replace medical advice. They are intended to guide the physical therapist caring for individuals with bleeding disorders in the important factors and elements of quality care.

Definition

Surgical removal of a part of the synovial membrane of a synovial joint. At the surgeon's discretion, this may also include surgical removal of intra-articular loose bodies and resection of impinging osteophytes.

Goal

To reduce the episodes of bleeding in the joint and minimize further joint damage as well as potentially improve ROM and decrease pain.

Indications for Referral for Orthopedic Surgical Consideration (Note: Not all indicators need to be present for referral to be initiated)

- Acute or chronic pain
- Recurrent or continued bleeding despite medical management
- Target joint development – 4 joint bleeds in a six-month period (MASAC target joint definition)
- Decreased ROM
- Chronic Swelling/warmth
- Decreased visible bony landmarks
- Muscle atrophy
- Palpable thickened synovium
- Decreased active/functional use of limb
- Crepitus
- Radiographic or clinical evidence of synovitis and /or osteophyte formation and intra articular loose bodies
- Compensatory movement pattern and/or antalgic gait

Patient consultation with an HTC is recommended prior to surgery: PT Intervention

Pre-operative conditioning: Goal is to prepare patients for surgery to optimize success.
Prior to each PT session, verify use of clotting factor replacement per medical team recommendations.

- Coordinate physical therapy in collaboration with orthopedic & hematology services
- Gait training using the appropriate assistive device as needed
- Pain management with possible cryotherapy, splinting, or immobilization in the acute stage; may consider TENS
- Minimized swelling/effusion (i.e. rest, cryotherapy, compression, elevation, kinesiology taping)
- Maximize AROM within pain-free range
- Maximized overall strength and condition

- Isometric strengthening around affected joint to minimized further atrophy
- Encourage independent ADLs as tolerated
- Minimized compensatory movement patterns
- Proprioceptive training as tolerated
- Provide education on pre- and post-operative expectations/goals
- If possible, obtain baseline MSKUS imaging to identify soft tissue proliferation and osteochondral condition.

Post-Surgical Intervention: Acute Care (immediate post-op):
Activity progression follows orthopedic recommendations.
Prior to each PT session, verify use of clotting factor replacement per medical team recommendations.

- Assistive devices (crutches or a walker) for lower extremity procedures
- Sling for upper extremity procedures
- Weight bearing status per surgeon orders
- Pain management techniques
- Functional mobility training
- Gentle progression of AA/AROM in pain-free range; avoid aggressive AA/PROM
- Education: edema management, home exercise program, pain management

Post-operative Rehabilitation: Activity progression follows orthopedic recommendations.
Rehabilitation times vary by individual patients and extent of surgery.
Prior to each PT session, verify use of clotting factor replacement per medical team recommendations.

- Progressive gait training within the weight bearing restrictions
- Gentle progression of range of motion
- Progressive strengthening program-isometric/isotonic
- Balance/proprioception
- initiation of ADLs
- Progression of home exercise program
- Biomechanical alignment
- Continued education on appropriate post-operative activity
- Must have pain-free movement in available ROM and full strength at the affected joint, as well as physician approval, before safe return to sport/work

Other Treatment Considerations

- Contact orthopedist with concerns regarding post-surgical complications
- Treatment duration will vary based on individual needs and may require a longer duration than those identified for individuals without bleeding disorders.
- Electrical stimulation
- Gentle manual therapy
- Aquatic therapy
- Orthotic evaluations

Precautions/Contraindications

- Inhibitor patients: Please contact the physical therapist at your regional Hemophilia Treatment Center (HTC) for more information on these complex patients
- Contact HTC if signs and symptoms persist or with delayed clinical progress
- Avoid aggressive exercise and activity
- Avoid increasing activity too early