



“Working together for  
a green, competitive and inclusive Europe”

“HE-RO-IS strategic cooperation in hematology”

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Curricula in hemophilia

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# Physiotherapy for the hemophilia joints

## **Hemophilia Joint Health Score 2.1**

The Hemophilia Joint Health Score (HJHS) was developed to track an individual's joint health over time.

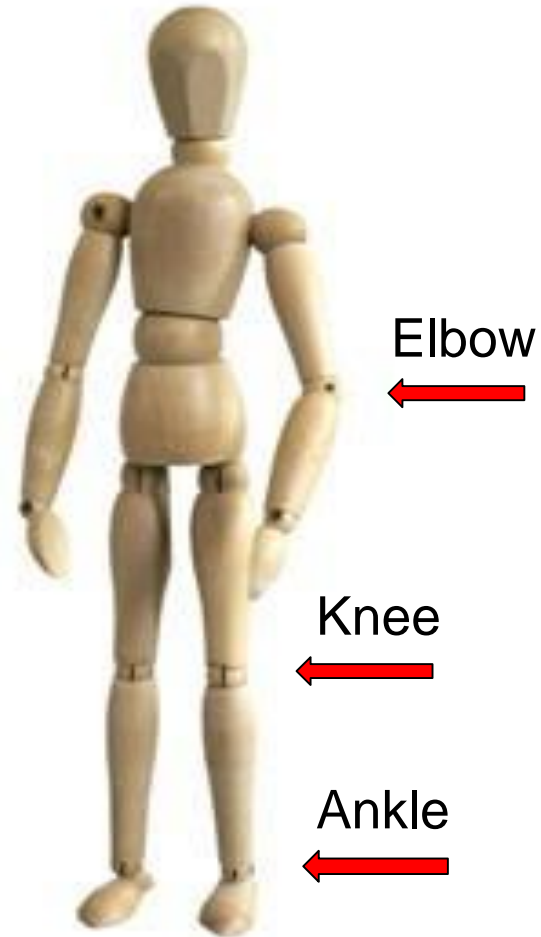
It is important to have a measurement of joint health.

Monitoring the long-term joint health provides important information for assessing the efficacy of current treatment.

# Hemophilia Joint Health Score - HJHS

Bleeding in the joints is the most common complication with hemophilia.

Without treatment joint bleed can be joint destruction.



# Hemophilia Joint Health Score - HJHS

The HJHS is designed for use by physiotherapists.

It is a physical examination of elbow, knee and ankle.

Each joint receives a numeric score which can be compared to itself over time.

- Reliable                      - Valid                      - Sensitive to changes

# Hemophilia Joint Health Score 2.1

Examine a patient takes approximately 45 - 60 minutes.



- Examination table
- Goniometer
- Measuring tape
- Cushion
- Stair

# Overview of points

Swelling	0 – 3 p
Duration	0 – 1 p
Muscle atrophy	0 – 2 p
Crepitus in motion	0 – 2 p
Flexion loss	0 – 3 p
Extension loss	0 – 3 p
Joint pain	0 - 2 p
Strength	0 – 4 p
Global Gait	0 – 4 p; walking, stairs, running, jumping on one leg



# Swelling / Duration of swelling

Look at both joints at the same time to determine the amount or lack of swelling.



# Muscle atrophy

Atrophy is defined as the reduction in size of a muscle. Look at the whole extremity as muscle groups should be in proportion to each other.



# **Crepitus of Motion**

Crepitus is defined as the crackling sound or sensation during joint motion.

Hands should be placed on the joint while encouraging the patient to move actively through range of motion.

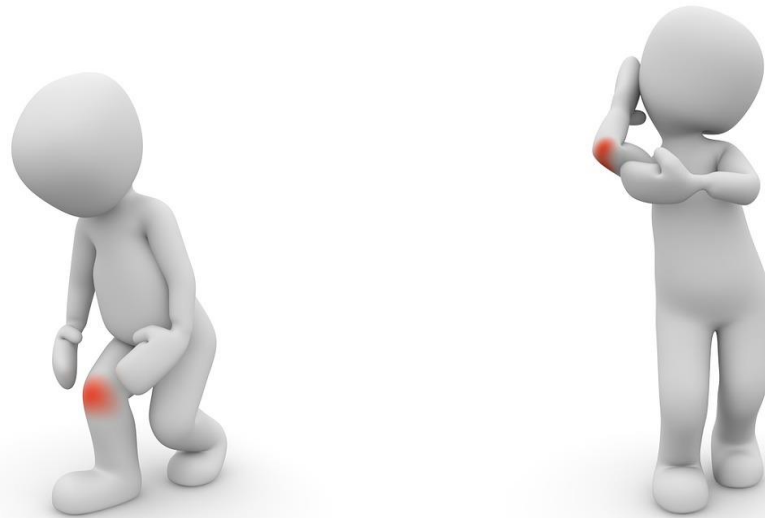
# Range of Motion

Range of motion should be done consistently using the same standardized approach.



# Joint pain

Joint pain should be assessed by moving the joint actively through range and by palpating over the joint line.



# Strenght

Strength will be assessed using the Daniels & Worthingham's scale.

Strength will be evaluated within the patient's range of motion.



# Global Gait

## Ankle:

- Equal weight shift
- Heel-toe pattern
- Good plantar flexion push-off
- Steps of equal length
- Steps of equal cadence

## Knee:

- Equal weight shift
- Heel strike with full knee extension
- Good knee extension on push-off
- Steps of equal length
- Steps of equal cadence

# References

- Hemophilia Joint Health Score 2.1 Instruction manual  
International prophylaxis study group (IPSG)
- Daniels and Worthingham's muscle testing. Techniques of manual examination HJ Hislop and JM Montgomery
- Measurement of joint motion: A guide to goniometry, Morkin, CC and White, DJ FA Davis company Philadelphia



Thank you!