

## HELKIMO INDEX

### Jaw mobility

- A) maximal opening of the mouth (vertical incisal edge difference + overbite)
- B) maximal laterotrusion to the left
- C) maximal laterotrusion to the right
- D) maximal protrusion

Sum of A + B + C + D → mobility index according to code  
code: 0 points = mobility index 0 = normal range of movement  
1 – 4 points = mobility index 1 = slightly impaired movement  
5 – 20 points = mobility index 5 = severely impaired movement

Sum of A + B + C + D + E  
dysfunction group 0 – 5 according to code

### **Clinical dysfunction index $D_i$ according to code**

code: 0 points = dysfunction group 0 = absence of clinical symptoms =  $D_i$  0  
1 – 4 points = dysfunction group 1 = minor dysfunction =  $D_i$  I  
5 – 9 points = dysfunction group 2 = moderate dysfunction =  $D_i$  II  
10 – 13 points = dysfunction group 3 = severe dysfunction =  $D_i$  III  
15 – 17 points = dysfunction group 4 = severe dysfunction =  $D_i$  III  
20 – 25 points = dysfunction group 5 = severe dysfunction =  $D_i$  III

### Symptoms of temporomandibular joint (TMJ) dysfunction

1. Impaired mobility
2. Altered function
3. Painful function
4. Muscle pain
5. TMJ pain

## **Impaired mobility**

### **Vertically**

IED: 30 – 39 mm      slightly impaired movement  
IED: ≤ 29 mm      severely impaired movement  
IED: ≥ 40 mm      normal range of movement

### **Horizontally**

4 – 6 mm      slightly impaired movement  
≤ 3 mm      severely impaired movement  
≥ 7 mm      normal range of movement

## **Altered function**

- 1) unilateral or bilateral clicking/friction  
laterotrusion (opening/closing of the jaws) ≥ 2 mm = slightly impaired function
- 2) luxation/locking during movement = severely impaired function  
(smooth movement, no sound / laterotrusion < 2 mm = normal function)

## **Painful function**

1. Pain associated with one movement = minor disorder
2. Pain associated with two or more movements = severe disorder (painless movement = normal function)

## **Muscle pain**

1. Sensitivity to pressure in 1 – 3 places = minor disorder
2. Sensitivity to pressure in 4 or more places = severe disorder (no sensitivity to pressure = no disorder)

## **TMJ pain**

1. Sensitivity to lateral pressure = minor disorder
2. Sensitivity to posterior pressure = severe disorder (no sensitivity to pressure = no disorder)