

# Questionnaire on exercise therapy prescriptions after hip replacement

Dear participant,

This questionnaire is designed to identify personal beliefs and institutional guidelines for exercise therapy treatment after hip replacement. We kindly ask you to answer the following questions. Your answers will help us to identify current standards of post-operative exercise therapy and the need of treatment guidelines. All information will be treated confidentially and anonymously. If you are uncertain regarding the most appropriate answer, please select the answer that you think is the closest to what you feel.

Thank you very much for supporting us.

## **1. Personal details** (Please tick as appropriate or complete)

1.1. Which occupational group do you belong to?

- a. Surgeon
- b. Orthopaedic physician
- c. Rehabilitation physician
- d. Exercise therapist
- e. Physiotherapist
- f. Other (please state) .....

1.2. How many years of professional experience do you have? .....

1.3. In which of the following type of facilities do you work?

- a. Outpatient rehabilitation clinics
- b. Acute inpatient hospital
- c. Inpatient rehabilitation clinics
- d. Physiotherapy practice
- e. Other (please state) .....

1.4. How many patients with total hip replacement (THR) do you treat (roundabout, average) in a month?

.....

**2. General questions about rehabilitation care and exercise therapy after total hip replacement** (Please tick as appropriate or complete)

2.1. What do you think influences the postoperative rehabilitation treatment? (Please rate according to the scale: 1 (unimportant), 5 (very important), multiple answers possible)

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
a. Type of prosthesis (cemented/uncemented)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Primary or secondary hip replacement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Quality of surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Course of surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Constitution of the patient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Further possible factors (please name):					
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.2. In your estimation, what is the optimal time to start full weightbearing after replacement surgery with a **cemented** prosthesis without any complications?

<b>0-5 days</b>	<b>6-10 days</b>	<b>11-20 days</b>	<b>21-30 days</b>	<b>5-6 weeks</b>	<b>7-8 weeks</b>	<b>more than 8 weeks</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.3. In your estimation, what is the optimal time to start full weightbearing after replacement surgery with an **uncemented** prosthesis without any complications?

<b>0-5 days</b>	<b>6-10 days</b>	<b>11-20 days</b>	<b>21-30 days</b>	<b>5-6 weeks</b>	<b>7-8 weeks</b>	<b>more than 8 weeks</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.4. In your estimation, what is the optimal time to start resistance training after replacement surgery with a **cemented** prosthesis without any complications?

<b>1-7 days post- operative</b>	<b>2-3 weeks post- operative</b>	<b>4-5 weeks post- operative</b>	<b>6-7 weeks post- operative</b>	<b>more than 8 weeks post- operative</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.5. In your estimation, what is the optimal time to start resistance training after replacement surgery with an **uncemented** prosthesis without any complications?

- |                                |                                 |                                 |                                 |   |
|--------------------------------|---------------------------------|---------------------------------|---------------------------------|---|
| 1-7 days<br>post-<br>operative | 2-3 weeks<br>post-<br>operative | 4-5 weeks<br>post-<br>operative | 6-7 weeks<br>post-<br>operative | more than 8<br>weeks post-<br>operative |
| <input type="checkbox"/>       | <input type="checkbox"/>        | <input type="checkbox"/>        | <input type="checkbox"/>        | <input type="checkbox"/>                |

**3. Questions on key exercise therapy components and rehabilitation objectives**

3.1. What key exercise therapy components are used in your facility-specific standard rehabilitation protocol following hip replacement? (Please rate the activities according to the scale: 1 (highest priority), 5 (lowest priority))

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
a. Gym exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Continuous passive motion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Neuromuscular / sensorimotor training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Stretching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Water exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Gait training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Stair climbing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Ergometer cycling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Walking exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Manual therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Individual physiotherapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Group exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.2. What are the overall objectives for the rehabilitation of hip replacement patients in your facility? (Please rate the activities according to the scale: 1 (highest priority), 5 (lowest priority))

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
a. Improving balance control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Reducing muscular imbalances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Improving mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Restoring functional gait patterns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Recovery of activities of daily living	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Improving core stability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Pain reduction / freedom of pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Strengthening of hip muscles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3. In your estimation, what is the optimal strength training intensity (perceived exertion) at **15 days postoperatively** on a scale between 6-20 (Borg Scale)?

	6	<input type="checkbox"/>
very, very light	7	<input type="checkbox"/>
	8	<input type="checkbox"/>
very light	9	<input type="checkbox"/>
	10	<input type="checkbox"/>
fairly light	11	<input type="checkbox"/>
	12	<input type="checkbox"/>
somewhat hard	13	<input type="checkbox"/>
	14	<input type="checkbox"/>
hard	15	<input type="checkbox"/>
	16	<input type="checkbox"/>
very hard	17	<input type="checkbox"/>
	18	<input type="checkbox"/>
very, very hard	19	<input type="checkbox"/>
	20	<input type="checkbox"/>

3.4. In your estimation, what is the optimal strength training intensity (perceived exertion) at **3 months postoperatively** on a scale between 6-20 (Borg Scale)?

	6	<input type="checkbox"/>
very, very light	7	<input type="checkbox"/>
	8	<input type="checkbox"/>
very light	9	<input type="checkbox"/>
	10	<input type="checkbox"/>
fairly light	11	<input type="checkbox"/>
	12	<input type="checkbox"/>
somewhat hard	13	<input type="checkbox"/>
	14	<input type="checkbox"/>
hard	15	<input type="checkbox"/>
	16	<input type="checkbox"/>
very hard	17	<input type="checkbox"/>
	18	<input type="checkbox"/>
very, very hard	19	<input type="checkbox"/>
	20	<input type="checkbox"/>

**4. Questions to assess the hip joint load during exercising**

4.1. Please rate the joint load on the hip during the following exercises on a scale from 1 (very low load) to 10 (maximum load).

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
a. Ergometer cycling, low resistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Ergometer cycling, high resistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Walking 4km/h	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. One-leg standing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Sitting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Chair rise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Bridging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Abduction in lateral position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Thank you for your participation.**