

# OSTEONECROSIS STUDY QUESTIONNAIRE

## SF-36 Health Survey (part 1) (Patient to Complete)

Name \_\_\_\_\_ Hospital # \_\_\_\_\_

Joint \_\_\_\_\_ Side \_\_\_\_\_ Date \_\_\_\_\_

1. In general, would you say your health is \_\_\_\_ Excellent \_\_\_\_ Very Good \_\_\_\_ Good \_\_\_\_ Fair \_\_\_\_ Poor
2. Compared to 1 year ago, how would you rate your health in general now?

- \_\_\_\_ Much better now than 1 year ago  
 \_\_\_\_ Somewhat better now than 1 year ago  
 \_\_\_\_ About the same  
 \_\_\_\_ Somewhat worse than 1 year ago  
 \_\_\_\_ Much worse now than 1 year ago

*Please Return to:*  
 Nancy Borgstrom  
 UMn. Dept. Orthopaedic Surgery  
 2512 So. 7<sup>th</sup> Street, Suite R200  
 Minneapolis MN 55454

3. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

		Yes, limited a lot	Yes, limited a little	No, not limited at all
a. <u>Vigorous activities</u> , such as running, lifting heavy objects, participating in strenuous sports.	a.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. <u>Moderate activities</u> , such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	b.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Lifting or carrying groceries	c.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Climbing <u>several</u> flights of stairs	d.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Climbing <u>one</u> flight of stairs	e.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Bending, kneeling, or stooping	f.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Walking <u>more than a mile</u>	g.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Walking <u>several blocks</u>	h.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Walking <u>one block</u>	i.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Bathing or dressing yourself	j.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

		Yes	No
a. Cut down on the <u>amount of time</u> you spent on work or other activities	a.	<input type="radio"/>	<input type="radio"/>
b. <u>Accomplished less</u> than you would like	b.	<input type="radio"/>	<input type="radio"/>
c. Were limited to the <u>Kind</u> of work or other activities	c.	<input type="radio"/>	<input type="radio"/>
d. Had <u>difficulty</u> performing the work or other activities (for example, it took extra effort)	d.	<input type="radio"/>	<input type="radio"/>

5. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

		Yes	No
a. Cut down on the <u>amount of time</u> you spent on work or other activities	a.	<input type="radio"/>	<input type="radio"/>
b. <u>Accomplished less</u> than you would like	b.	<input type="radio"/>	<input type="radio"/>
c. Didn't do work or other activities as <u>carefully</u> as usual	c.	<input type="radio"/>	<input type="radio"/>

6. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

Not at all       Slightly       Moderately       Quite a bit       Extremely

7. How much bodily pain have you had during the past 4 weeks?

- None       Very Mild       Mild       Moderate       Severe       Very severe

8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

- Not at all       A little bit       Moderately       Quite a bit       Extremely

9. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.

		All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
a. Did you feel full of pep?	a.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Have you been a very nervous person?	b.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Have you felt so down in the dumps nothing could cheer you up?	c.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Have you felt calm and peaceful?	d.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Did you have a lot of energy?	e.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Have you felt downhearted and blue?	f.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Do you feel worn out?	g.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Have you been a happy person?	h.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Did you feel tired?	i.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

- All of the time       Most of the time       Some of the time       A little of the time       None of the time

11. How true or false is each of the following statements for you?

		Not sure	Definitely false	Mostly false	Mostly true	Definitely true
a. I seem to get sick a little easier than other people.	a.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I am as healthy as anybody I know.	b.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I expect my health to get worse.	c.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. My health is excellent	d.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**WOMAC Osteoarthritis Index (part 2)**  
**(Patient to Complete)**

12. The following questions concern the amount of pain you are currently experiencing in your hips and/or knees. For each situation, please enter the amount of pain you have experienced in the past 48 hours.

			None	Mild	Moderate	Severe	Extreme
a. Walking on a flat surface.	left hip	a.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	a.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Going up or down stairs	left hip	b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. At night while in bed	left hip	c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Sitting or lying	left hip	d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Standing upright	left hip	e.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	e.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please describe the level of pain you have experienced in the past 48 hours in each of your hips and/or knees.

		None	Mild	Moderate	Severe	Extreme
f. Right hip	f.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Left hip	g.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Right knee	h.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Left knee	i.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following questions concern the amount of joint stiffness (not pain) you have experienced in the last 48 hours in your hips and/or knees. Stiffness is a sensation of restriction or slowness in the ease with which you move your joints.

		None	Mild	Moderate	Severe	Extreme
13. How <u>severe</u> is your stiffness after first awaking in the morning?	left hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. How severe is your stiffness after sitting, lying, or resting <u>later in the day</u> ?	left hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. The following questions concern your physical function. By this we mean your ability to move around and to look after yourself. For each of the following activities, please indicate the degree of difficulty you have experienced in the last 48 hours in your hips and/or knees.

What degree of difficulty do you have with:		None	Mild	Moderate	Severe	Extreme
a. Descending (going down) stairs	a.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Ascending (going up) stairs	b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Rising from sitting	c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Standing	d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Bending to the floor	e.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Walking on a flat surface	f.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Getting in and out of a car	g.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Going shopping	h.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Putting on socks/stockings	left hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	right hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Rising from bed	j.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Taking off socks/stockings	left hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ث
	right hip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ث
l. Lying in bed	l.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Getting in/out of bath	M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Sitting	n.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Getting on/off toilet	o.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Heavy domestic duties (such as mowing the lawn, lifting heavy grocery bags, vacuuming)	p.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Light domestic duties (such as tidying a room, dusting, cooking)	q.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Harris Hip Clinical Rating Scale (part 3) (Patient to Complete)

#### Pain - Degree

1. None (No pain)  
 2. Slight (Occasional, no compromise in activities)  
 3. Mild (No effect on average activities, rarely moderate pain with unusual activities, may take aspirin)  
 4. Moderate (Patient is active but has had to modify or give up some activities)  
 5. Severe (Major pain and serious limitations )  
 6. Disabled (Pain in bed or bedridden)

Pain - Occurrence

- \_\_\_ 1. None
- \_\_\_ 2. With first steps, then dissipates (Start up pain)
- \_\_\_ 3. Only after long (30 min) walks
- \_\_\_ 4. With all walking
- \_\_\_ 5. At all times

Work/Level of Activity

Occupation (specify, including homemaker) \_\_\_\_\_  
Retired: \_\_\_ Yes \_\_\_ No Nursing Home: \_\_\_ No \_\_\_ Yes (Date entered: \_\_\_\_\_)

Level of activity:

- \_\_\_ 1. Bedridden or confined to a wheelchair
- \_\_\_ 2. Sedentary (Minimum capacity for walking or other activity)
- \_\_\_ 3. Semi-sedentary (White-collar job, bench work, light housekeeping)
- \_\_\_ 4. Light labor (Heavy house-cleaning, yard work, assembly line, light sports [e.g., walking < 3m])
- \_\_\_ 5. Moderate manual labor (Lifts < 50lb, moderate sports [e.g., walking or bicycling > 3m])
- \_\_\_ 6. Heavy manual labor (Frequently lifts 50-100lb, vigorous sports [e.g. singles tennis or racquetball])

Work capacity (percentage of time worked) in last 3 mo

- \_\_\_ 1. 100% \_\_\_ 2. 75% \_\_\_ 3. 50% \_\_\_ 4. 25% \_\_\_ 5. 0%

\_\_\_ Putting on shoes and socks: Left Hip

- \_\_\_ 1. no difficulty \_\_\_ 2. slight difficulty \_\_\_ 3. extreme difficulty \_\_\_ 4. unable

\_\_\_ Putting on shoes and socks: Right Hip

- \_\_\_ 1. no difficulty \_\_\_ 2. slight difficulty \_\_\_ 3. extreme difficulty \_\_\_ 4. unable

\_\_\_ Ascending and descending stairs:

- \_\_\_ 1. Normal (foot over foot) \_\_\_ 2. Foot over foot using banister or assistive device
- \_\_\_ 3. 2 feet on each step \_\_\_ 4. Any other method \_\_\_ 5. Unable

\_\_\_ Can patient use public transportation? \_\_\_ Yes \_\_\_ No

Sitting to Standing:

- \_\_\_ 1. Can arise from chair without upper extremity support
- \_\_\_ 2. Can arise from chair with upper extremity support
- \_\_\_ 3. Cannot arise independently

\_\_\_ Sitting:

- \_\_\_ 1. Comfortable in any chair for one hour
- \_\_\_ 2. Comfortable in high chair for 1/2 hour
- \_\_\_ 3. Unable to sit comfortably in any chair

\_\_\_ Walking Capacity: (Support necessary to walk 6-9 block, about 1 mile)

Usual support needed: 1. \_\_\_ None 2. \_\_\_ 1 cane for long walks 3. \_\_\_ 1 cane 4. \_\_\_ 2 canes 5. \_\_\_ 1 crutch  
6. \_\_\_ 2 crutches 7. \_\_\_ walker 8. \_\_\_ unable to walk

\_\_\_ Endurance: 1. \_\_\_ Unlimited 2. \_\_\_ 6 blocks 3. \_\_\_ 2-3 blocks 4. \_\_\_ Indoors 5. \_\_\_ Bed to chair

Time walked:

Without support: 1. \_\_\_ Unlimited >60 min 2. \_\_\_ 31-60 mins. 3. \_\_\_ 11-30 mins. 4. \_\_\_ 2-10 mins.  
5. \_\_\_ < 2 min or indoors only 6. \_\_\_ Unable to walk

With support: 1. \_\_\_ Unlimited >60 min 2. \_\_\_ 31-60 mins 3. \_\_\_ 11-30 mins. 4. \_\_\_ 2-10 mins.  
5. \_\_\_ < 2 min or indoors only 6. \_\_\_ Unable to walk

**If You Had An Operation: Satisfaction of patient?**

Operation increased your function? \_\_\_ Yes \_\_\_ No  
 Operation decreased your pain? \_\_\_ Yes \_\_\_ No  
 Operation decreased your need for pain medication? \_\_\_ Yes \_\_\_ No \_\_\_ NA  
 Satisfied with results? \_\_\_ Yes \_\_\_ No  
 Status of hip compared with your last visit? \_\_\_ Better \_\_\_ Same \_\_\_ Worse  
 Does Patient use aspirin? \_\_\_ Yes \_\_\_ No  
 How often? \_\_\_ Occasionally \_\_\_ Frequently  
 Does Patient use Narcotics? \_\_\_ Yes \_\_\_ No  
 How often? \_\_\_ Occasionally \_\_\_ Frequently

**STOP! The Physician Will Complete the Remainder of This Form**

**Physical Examination:**

\_\_\_ Limp *without* support  
 \_\_\_ None - no limp  
 \_\_\_ Slight limp - detected by trained observer  
 \_\_\_ Moderate - detected by patient  
 \_\_\_ Severe - markedly alters or slows gait

___ Range of motion of hip:	Left	Right	
Extension	___ °	___	<b><u>ARCO Ledger</u></b>
Fixed flexion contracture	___ °	___ °	
Flexion	___ °	___ °	Stage I: Xray negative MRI positive
Abduction	___ °	___ °	Stage II: Xray positive MRI positive
Adduction	___ °	___ °	
With hip in extension:			
External rotation	___ °	___ °	Stage III: Specify if: < 1mm collapse or > 1 mm collapse
Internal rotation	___ °	___ °	
With hip flexed			Stage IV: DJD of hip
External rotation	___ °	___ °	
Internal rotation	___ °	___ °	
Trendelenburg sign (positive, negative or unable to test, N/A)	___	___	<b><u>Study Group Ledger</u></b>
Trendelenburg lurch (present or absent)	___	___	
Limb inequality (in cm)	___	___	2B: Asymptomatic ON
ARCO Stage of Disease	___	___	3A: ARCO stage I or II, randomized surgery
Study Group	___	___	3B: ARCO stage III, core decompression + PMMA
X-ray Findings/Progression	Y__N__	Y__N__	4: ARCO stage III, surface replacement.
MRI Findings	___	___	5. ARCO stage I or II, core decompression with autogenous graft.

**Comments** \_\_\_\_\_

Etiology of Osteonecrosis: \_\_\_\_\_ Past Medical History \_\_\_\_\_

History of Steroid Use? Y/N \_\_\_\_\_ Dose? \_\_\_\_\_ History of EtOH? Y/N \_\_\_\_\_

**Physician Performing Evaluation:** \_\_\_\_\_ **Date:** \_\_\_\_\_