

## 2-YEAR HIP FOLLOW-UP

It is important to review the status of your hip implant(s) during an office visit at six weeks, one year, two years, and every other year postoperatively thereafter for your safety even though you are feeling great. Long distance follow-up evaluations for out-of- state patients are fine. We would like to ask you to complete the following evaluation protocol.

- 1) *Hip questionnaire:* We keep track of each joint separately in our database. Therefore, I would like to request that you fill out a self rating form for **EACH** hip, even if both are identical. Please send to us.
- 2) *Hip X-Ray :*
  - Add your name to the x-ray request
  - Have the x-ray of your hip(s) done at your local hospital or radiologist and request a CD copy of this x-ray be sent to us
- 3) *Physical Therapy:*
  - Add your name to the physical therapy evaluation request
  - Give the order and physical exam form to your physical therapist
  - Send the results to us
- 4) *Metal Ion Test:*
  - Add your name to the prescription
  - Have the test done at the nearest lab
  - Send the results to us
  - **\*\*Please avoid multi-vitamins for 1-week prior to testing.\*\***

As soon as we receive all of the above, I will review them and send you a written response. If you prefer to travel here for an office visit for evaluation, please call our appointment line to arrange this (803) 256-4107 (routine office charges will apply). If you are having significant problems with your hip, I will need to see you in the office for complete examination to best diagnose it.

Thank you for your attention to this matter. If you have any questions, please contact us for assistance.

Thomas P. Gross MD

Lee Webb, DNP, APRN, FNP-C

**Attached Forms:**

1. *Follow up hip questionnaire* (page 3-8)
2. *Hip XR request and radiologist's instructions* (page 9-11)
  - 3a. Physical exam form (page 10-11)
  - 3b. Physical therapy evaluation letter (page 12)
  - 3c. Physical therapy evaluation request (page 13)
- 4a. Metal ion information: do not submit; for your use only (page 14-15)
- 4b. *Metal ion test prescription* (page 16)
- 4c. Quest Facility Locations\* (page 17-18): do not submit; for your use only

For metal ion bloodwork, we prefer that our patients use Quest Diagnostics. We have attached a list of all Quest locations in the U.S. If you are not local to a Quest facility, any blood work laboratory will do (call ahead to make sure they cobalt/chromium testing).

E-mail: [grosspatientfollowup@midlandsortho.com](mailto:grosspatientfollowup@midlandsortho.com)

Call: (803) 933-6127

FAX: (803) 933-6339

If you don't have any questions, please follow the protocol and fill out each form below, then FEDEX the packet to:

Dr. Thomas P. Gross  
Attn: Hip follow-up  
Midlands Orthopaedics & Neurosurgery  
1910 Blanding St.  
Columbia, SC 29201

# Hip Follow-Up Form

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Name: \_\_\_\_\_ Date \_\_\_\_\_

## Follow-up Information

**1. Where was this form completed?**

- Office
- Phone
- Mail-In
- Internet

**2. This questionnaire is for the evaluation of my (side) hip.**

- Left
- Right

**3. I have had problems with my (side) hip(s).**

- Left
- Right
- Both

**4. Dr. Gross has operated on my (side) hip(s).**

- Left
- Right
- Both

**5. Another surgeon has operated on my (side) hip(s).**

- Left
- Right
- Both

**6. Dr. Gross performed the followed operation(s) on me:**

- Total hip replacement
- Hip resurfacing
- Revision hip surgery
- Other: \_\_\_\_\_

## Complications

**1. List any complications you had post-surgery:**

- None
- Wound Infection
- Deep Venous Thrombosis
- Pulmonary Embolus (Blood clot travelling to lungs)
- Partial Sciatic Palsy (Nerve injury)
- Dislocation
- Fracture
- Loosened implant
- Other: \_\_\_\_\_

**2. Did you have any complications that required further surgery?**

- Yes; Please explain: \_\_\_\_\_
- No

## Clinical Function Score

**1. What category most closely represents your pain level?**

- None, or so insignificant that I ignore it
- Regularly slight
- Mild
- Moderate
- Severe
- Disabled

2. My hip pain is located in my (check all that apply):

- No pain
- Groin
- Front of thigh
- Buttock
- Side of thigh
- Side of hip, near scar
- Other pain: \_\_\_\_\_

3. Please circle your regular pain level on the following scale.



4. Please circle your highest hip pain level on the following scale.



5. Please indicate the severity of your limp, if any.

- None
- Slight
- Mild
- Moderate
- Severe
- Disabled

6. Please indicate your use of support, if any.

- None required
- Use of a cane or a stick for long walks or high activity only
- Use of a cane or a stick almost always
- Use of one crutch almost always
- Use of two crutches or a walker
- Unable to move across the room

**7. I am able to walk \_\_\_\_\_ without a break:**

- Over one mile/Unlimited
- 6 blocks or roughly 30 minutes
- 2-3 blocks or roughly 10-15 minutes
- Indoor walking only
- Bed and chair only

**8. Which of the following describes how you take stairs?**

- Normally foot-over-foot without NEEDING the railing
- Normally using the railing
- Leading with non-painful hip one step at a time
- Cannot take the stairs

**9. I am able to put socks/shoes on....**

- With ease
- With difficulty
- Unable to put socks or shoes on without help

**10. Under what circumstances can you sit comfortably?**

- Any chair/1+ hour
- High chair/30 minutes
- Unable to sit comfortably

**11. Are you able to get in and out of a vehicle without help?**

- Yes
- No

**12. Please list any unrelated orthopaedic issues that you believe might effect your hip function score (i.e. bad back, arthritis in other hip, non-hip pain, etc.)**

- Yes; please list: \_\_\_\_\_
- No

**13. How is your hip joint now compared to before surgery?**

- Better than my normal, healthy, pre-arthritis/damaged hip
- Feels just like my normal, healthy, pre-arthritis/damaged hip
- Much better than before surgery, with minor aches and pains
- Somewhat better than before surgery
- About the same
- Worse than before surgery

**Activity Score**

**1. Which best describes your current level of activity? (Please circle one.)**

| Class | Description   |
|-------|---|
| 1     | Wholly inactive, dependent on others, and can not leave residence   |
| 2     | Mostly inactive or restricted to minimum activities of daily living   |
| 3     | Sometimes participates in mild activities, such as walking, limited housework, and limited shopping                       |
| 4     | Regularly participates in mild activities   |
| 5     | Sometimes participates in moderate activities, such as swimming, or could do unlimited housework or shopping              |
| 6     | Regularly participates in moderate activities   |
| 7     | Regularly participates in active events, such as bicycling  |
| 8     | Regularly participates in active events, such as bowling or golf  |
| 9     | Sometimes participates in impact sports, such as jogging, tennis, skiing, acrobatics, ballet, heavy labor, or backpacking |
| 10    | Regularly participates in impact sports   |

**2. Please list any activities that you participate in regularly.**

\_\_\_\_\_

**3. Please list any vigorous activities that you occasionally participate in.**

\_\_\_\_\_

**4. My activity is now \_\_\_\_\_ compared to before surgery.**

- Higher
- Similar
- Lower

## Conclusions

5. Overall, are you happy with your decision to have this surgery?

- Yes
- No

6. Do you have any comments?

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**MIDLANDS**  
**orthopaedics**  
**& NEUROSURGERY**

(803) 256-4107  
1910 Blanding St.  
Columbia, SC 29201  
1013 Lake Murray Blvd.  
Irmo, SC 29063

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R<sub>x</sub> FOR \_\_\_\_\_  
ADDRESS \_\_\_\_\_ DATE \_\_\_\_\_

Please select/circle ONE section (either 1, 2, or 3) to ensure the appropriate xrays are obtained from the patient's radiology facility.

1. LEFT
  - a. Diagnoses:
    - i. Osteoarthritis (OA) of the hip – **M16.12**
    - ii. Hip pain – **M25.552**
2. RIGHT
  - a. Diagnoses:
    - i. Osteoarthritis (OA) of the hip – **M16.11**
    - ii. Hip pain – **M25.551**
3. BILATERAL
  - a. Diagnoses:
    - i. Osteoarthritis (OA) of the hip – **M16.10**
    - ii. Hip pain – **M25.559**

Views (please include all of the following):


1. AP Pelvis Standing (Please label as "STANDING")
2. AP Pelvis Supine (Please label as "SUPINE")

Please provide the patient with a CD digital copy of these x-rays for my review, and mail to:

Midlands Orthopaedics & Neurosurgery

ATTN: Gross follow-up  
1910 Blanding Street  
Columbia, SC 29201

Thomas P.  
Gross, MD

 Digitally signed by Thomas P.  
Gross, MD  
Date: 2019.05.29 08:40:02  
-04'00'

Thomas P. Gross M.D  
 Midlands Orthopaedics  
 1910 Blanding St  
 Columbia SC 29201

|   |
|---|
| <p><b>Office Use Only</b></p> <p>Date Received: ____/____/____</p> <p>Office Record Number: _____</p> |
|---|

**\*\*PATIENT TO FILL THIS SECTION\*\*:**

Name of patient being evaluated: \_\_\_\_\_  
 Date of Surgery: Right: \_\_\_\_\_ Left: \_\_\_\_\_  
 Type of Surgery: Right: \_\_\_\_\_ Left: \_\_\_\_\_  
 Interval from Surgery: \_\_\_\_\_

|                   |                  |
|-------------------|------------------|
| <b>Right: N/A</b> | <b>Left: N/A</b> |
| <b>6 weeks</b>    | <b>6 weeks</b>   |
| <b>1 year</b>     | <b>1 year</b>    |
| <b>2 year</b>     | <b>2 year</b>    |
| <b>Or _____</b>   | <b>Or _____</b>  |

**TO BE COMPLETED BY A PHYSICAL THERAPIST**

- Patient Charnley Category:**  
 A1: Unilateral with opposite hip normal  
 A2: Bilateral with satisfactory function of opposite hip  
 B: Unilateral other hip impaired \_\_  
 C: Multiple arthritis or medical infirmity

|  |              |             |
|--|--------------|-------------|
| <b>2. Range of Motion:</b>                       | <b>Right</b> | <b>Left</b> |
| a. Flexion Contracture*                          | _____        | _____       |
| b. Flexion to**                                  | _____        | _____       |
| c. abduction at 45 degees of flexion to          | _____        | _____       |
| d. adduction at 45 degrees of flexion to         | _____        | _____       |
| e. external rotation at 45 degrees of flexion to | _____        | _____       |
| f. internal rotation at 45 degrees of flexion to | _____        | _____       |
| g. IR with knee flexed to 90 degrees ***         | _____        | _____       |

\* Enter 0 if the leg is able to lie flat on the exam table.  
 \*\* Do not push past 100 degrees before 1 year  
 \*\*\*Do not perform this one until one year after surgery please

- Gait:**
  - Normal
  - Antalgic
  - Trendelenburg
  - Short Leg
  - Other \_\_\_\_\_

- Trendelenburg Sign:**

- Positive
  - Negative
- 5. Active SLR painful?**
- No
  - Yes If Yes Where? \_\_\_\_\_
- 6. Strength SLR (grade 0-5):** \_\_\_\_\_
- 7. Strength Abduction (grade 0-5):** \_\_\_\_\_
- 8. Leg Length:**  
 Equal    Left short \_\_\_\_\_    Right short \_\_\_\_\_
- 9. Tender:**
- No
  - Yes If yes, where? \_\_\_\_\_
- 10. Condition of incision:** \_\_\_\_\_

**Physical Therapist Signature:**

\_\_\_\_\_

**Date:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Please give a copy to the patient and mail one to me at the above address. Thank you.**

Updated 1/31/08

**MIDLANDS**  
**orthopaedics**  
**& NEUROSURGERY**

(803) 256-4107  
Fax: (803) 933-6339  
1910 Blanding St.  
Columbia, SC 29201  
1013 Lake Murray Blvd.  
Irmo, SC 29063

Dear Physical Therapist:

The person presenting this form has had a hip surface replacement performed by Dr. Thomas P. Gross \_\_\_\_\_ weeks/years ago. We are asking that you objectively evaluate his/her hip and send me a report. If the patient is less than one year postop, the hip cannot be pushed into extreme flexion, adduction and internal rotation. (See form). Please record the range of motion that can be achieved by gentle examination in this case.

If the patient is approximately six weeks postop, please review and assist them with my Phase II Hip Exercise Program. The patient has been instructed to bring this with him/her in this situation.

**Thomas P. Gross M.D**

**Please FAX to: 803-933-6339 and give the patient a copy.**

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Columbia, SC 29201  
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Irmo, SC 29063

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FOR \_\_\_\_\_


**R** ADDRESS \_\_\_\_\_ DATE \_\_\_\_\_

Please evaluate both hips in the above patient for range of motion and strength and provide a report on my standardized form included.

**Thomas P. Gross M.D**

Please FAX to: 803-933-6339 and give the patient a copy.

Thomas P.  
Gross, MD

 Digitally signed by Thomas P.  
Gross, MD  
Date: 2019.05.29 08:40:02  
-04'00'

- **I request that you obtain blood testing for metal ions as part of your routine hip follow-up**
- **A prescription is enclosed for Cobalt and Chromium levels.**
- **The test should be done at a Quest laboratory. This is a national lab with branches throughout the US. Please check the Internet (or attached list) for a location near you.**
- ***\*\*You must avoid vitamins and other supplements for one week prior to testing.\*\****

Recent scientific data suggests that this is a good method of evaluating metal bearing implants for wear. Enough evidence now exists for us to begin using blood levels for metal ions to monitor patients for implant wear problems. If we do discover elevated levels, I advocate closer follow-up and further evaluation.

All artificial implants wear at the bearing surface. If the bearing is metal-on-metal, this wear debris is cobalt and chromium. It usually gets absorbed by the body and transported to the kidney where it is removed from the body. In rare cases there is a higher than expected wear rate and these wear particles accumulate in the local tissues around the hip. If the load of particles gets too high, a local inflammation can result. If levels in the blood are high, this may indicate that the local tissues are overloaded. Therefore, measuring the blood levels is a good way to screen patients for high wear and possible local tissue reaction in the hip.

I have personally performed over 3000 metal bearing hip resurfacings/ replacements in the last 10 years. I have only twice had to revise implants for this wear problem. The overall failure rate has been very low and other types of failures like fracture or loosening are far more common. Furthermore, in all revisions that I have performed for loosening of the cemented femoral resurfacing component, I have never come across a case of accelerated wear at the time of surgery. Furthermore, about 300,000 total knee replacements are done in the US yearly and research has shown that similar ion levels are measured with these implants as in hip resurfacings. Total Knee replacements have been performed in much higher numbers and for many more years than hip resurfacings. We therefore know that typical ion levels are well tolerated by most people.

Nevertheless, I have become convinced that closer monitoring with metal levels is desirable. I suggest that we obtain levels beginning at 2 years post surgery and then repeat them every other year at the time of your routine follow-up. If you come to see me in the office, I suggest that you have the levels drawn 2-4 weeks in advance so that the results are available for our visit. If your surgery was done over 2 years ago, anytime is a good time to get the first level. We should then recheck at the time of your every other year routine follow-up dates.

A prescription can be downloaded from my website. It is very important that the same laboratory always does these levels, because the results vary widely between labs. I have chosen Quest Laboratories, because they have a nationwide presence and have a good reputation. You should look up Quest labs online and make **sure** that your levels are done at one of their facilities or at a facility that sends their labs to Quest. If labs are drawn at Providence Northeast Hospital in Columbia, they are sent to Quest. Quest is specifically listed on my prescription as well to serve as a reminder. If your levels are done at any other lab, the results may not be comparable to the rest in my database.

It is important that you avoid taking vitamin or mineral supplements for at least 1 week before testing. Many of these supplements contain chromium and can lead to false reports on the blood tests.

Any joint implants that contain cobalt-chrome metal can raise your levels. This includes total knees, total hips, resurfacings, and total shoulders.

I recommend routine follow-up for all patients with joint replacements even if they are doing well. I constantly make an effort to contact patients and try to remind them that follow-up is important. It is particularly important to monitor new technology regularly. My currently recommended follow-up intervals are at 6 weeks, 1 year, 2 years, and every other year thereafter. The first two visits are best done at my office in person. After that time, remote follow-up is adequate. Of course, you are always welcome to come see me at any time!

**At 2 years and beyond, information on how to complete remote follow-up is on my website. The following items are now recommended at each evaluation:**

- 1. Standing AP pelvis XR labeled "standing" (We require a digital DICOM image on a disc).**
- 2. Questionnaire filled out online. Directions on my website.**
- 3. Blood test: metal ion levels Cobalt and Chromium. A prescription is available on my website.**

If you have only one implant in your body, and the cobalt and Chromium levels are below 10ug/L each, we will just continue routine monitoring. If the levels are higher, further evaluation may be advised. If we receive your levels, I will send you a note that the levels are in the expected range, or I will contact you within 2 weeks of receiving the test results. If you don't hear from us, we have not received your test results. Please contact our office or the lab and be sure that the levels get to us.

There will be no charge for reviewing your XR, questionnaire, and metal ion levels and sending you a notification. I would like to continue to monitor your results at routine intervals to be sure that you are doing well. If you have had revision surgery, I want to know about it. If you are having a problem, I would like to help you resolve it, if possible. Please keep in touch.

With best Regards,

Thomas P. Gross, MD  
[www.Grossortho.com](http://www.Grossortho.com)  
803.256.4107

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**orthopaedics**  
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Columbia, SC 29201  
1013 Lake Murray Blvd.  
Irmo, SC 29063

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R<sub>x</sub> FOR \_\_\_\_\_  
Address: \_\_\_\_\_ Date: \_\_\_\_\_

Request for a blood test for metal ion levels of COBALT and CHROMIUM

STOP TAKING VITAMINS AND MINERAL SUPPLEMENTS 1 WEEK PRIOR TO TEST.

We request that test be performed at the patient's local QUEST laboratories, if possible.

|               |   |   |
|---------------|---|---|
| DIAGNOSIS:    | <input type="checkbox"/> OA, left hip (M16.12)        | <input type="checkbox"/> Left hip pain (M25.552)        |
| (choose one   | <input type="checkbox"/> OA, right hip (M16.11)       | <input type="checkbox"/> Right hip pain (M25.551)       |
| that applies) | <input type="checkbox"/> OA, unspecified hip (M16.10) | <input type="checkbox"/> Unspecified hip pain (M25.559) |

If you require an electronic prescription, please call: 803-933-6127

Thomas P.  
Gross, MD

Digitally signed by Thomas P.  
Gross, MD  
Date: 2019.05.29 08:40:02  
-04'00'

Please FAX to 803-933-6339 and \*give the patient an additional copy\*



If you can't find a lab for metal ion tests from the following address, you can locate a lab from the link by yourself as well:  
[http://www.questdiagnostics.com/hcp/psc/jsp/hcp\\_psc\\_index.jsp#bottom](http://www.questdiagnostics.com/hcp/psc/jsp/hcp_psc_index.jsp#bottom)

| NAME   | ADDRESS                           | CITY               | STATE | ZIP   | PHONE        |
|--|-----------------------------------|--------------------|-------|-------|--------------|
| Quest Diagnostics- Myrtle Beach                                | 909 Medical Cir                   | Myrtle Beach       | SC    | 29572 | 866-697-8378 |
| Quest Diagnostics - Aiken                                      | 156 University Pkwy Ste 100       | Aiken              | SC    | 29801 | 866-697-8378 |
| Quest Diagnostics- Bluffton                                    | 25 Sherington Dr. Ste B           | Bluffton           | SC    | 29910 | 866-697-8378 |
| Quest Diagnostics - Charleston-West Ashley                     | 1470 Tobias Gadson Blvd Suite 101 | Charleston         | SC    | 29407 | 866-697-8378 |
| Quest Diagnostics- James Island                                | 418 Foly Road Sutie C             | Charleston         | SC    | 29412 | 866-697-8378 |
| Quest Diagnostics - Columbia                                   | 3010 Farrow Rd Ste 110            | Columbia           | SC    | 29203 | 866-697-8378 |
| Baptist Easley Hospital - Specimen Collection Agreement        | 200 Fleetwood Dr                  | Easley             | SC    | 29640 | 864-442-7694 |
| Quest Diagnostics - Greenville                                 | 1003 Grove Rd Suite A             | Greenville         | SC    | 29605 | 866-697-8378 |
| Quest Diagnostics - Greenwood                                  | 105 Vine Crest Court Suite 1300   | Greenwood          | SC    | 29646 | 866-697-8378 |
| Quest Diagnostics- Hilton Head-Heritage                        | 460 William Hilton Pkwy           | Hilton Head Island | SC    | 29926 | 866-697-8378 |
| Marion County Medical Center - Third Party Specimen Collection | 2829 E Highway 76                 | Mullins            | SC    | 29574 | 843-431-2550 |
| Newberry County Memorial Hospital - Purchased Service          | 2669 Kinard St                    | Newberry           | SC    | 29108 | 803-276-7570 |
| Quick Draws - Third Party Collection Site                      | 10135d Clemson Blvd               | Seneca             | SC    | 29678 | 864-888-0027 |
| Quest Diagnostics - Summerville                                | 104 Morgan Pl Ste C               | Summerville        | SC    | 29485 | 866-697-8378 |

|   |                                    |              |    |       |              |
|---|------------------------------------|--------------|----|-------|--------------|
| Quest Diagnostics - Asheville   | 41 Oakland Rd Ste 150              | Asheville    | NC | 28801 | 866-697-8378 |
| Quest Diagnostics - Charlotte-University                              | 10320 Mallard Creek Rd Ste 290     | Charlotte    | NC | 28262 | 866-697-8378 |
| Quest Diagnostics- Fayetteville                                       | 3186 Village Dr Ste 202            | Fayetteville | NC | 28304 | 866-697-8378 |
| Caldwell Memorial Hospital - Specimen Collection Agreement            | 321 Mulberry St SW                 | Lenoir       | NC | 28645 | 828-757-5256 |
| Clinical Laboratory Service - Third Party Collection Site             | 102 Lincoln Medical Park           | Lincolnton   | NC | 28092 | 704-732-1752 |
| Lake Norman Regional Medical Center - Third Party Specimen Collection | 171 Fairview Rd                    | Mooresville  | NC | 28117 | 704-527-4968 |
| Medac 1- Third party Collection                                       | 4402 Shipyard Blvd                 | Wilmington   | NC | 28403 | 910-791-0075 |
| Medac II - Third Party Collection Site                                | 1142 Military Cutoff rd            | Wilmington   | NC | 28405 | 910-256-6088 |
| Medac III - Third Party Collection Site                               | 8115 Market St                     | Wilmington   | NC | 28411 | 910-686-1972 |
| Quest Diagnostics- Athens   | 1000 Hawthorne Ave Ste Q           | Athens       | GA | 30606 | 866-697-8378 |
| Quest Diagnostics - Augusta   | 1109 Medical Center Drive Suite 2A | Augusta      | GA | 30909 | 866-697-8378 |
| Evans Memorial Hosptial   | 200 N River St                     | Claxton      | GA | 30417 | 912-739-5110 |
| Eatonton Medical and Surgical Center                                  | 132 Sparta Highway                 | Eatonton     | GA | 31024 | 706-485-8495 |
| Candler Hosptia- Rapid Response Testing and Specimen                  | 5353 Reynolds St                   | Savannah     | GA | 31405 | 912-819-7250 |
| East Georgia Regional Medical Center- PSA                             | 1499 Fair Rd                       | Statesboro   | GA | 30458 | 912-486-1610 |
| McDuffie Regional Medical Center - Third Party Specimen Collection    | 521 Hill Street, Southwest         | Thomson      | GA | 30824 | 706-597-5287 |
| Vidalia Lab Services, Inc- Specimen Collection Agreement              | 1802 Teston Ln                     | Vidalia      | GA | 30474 | 912-537-0622 |