

OVERVIEW OF 15-MONTH FOLLOW-UP**TABLE OF CONTENTS**

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OVERVIEW OF 15-MONTH FOLLOW UP

1. Overview of measurements

1.1 Telephone interview

The first follow up contact for all MOST participants will be a telephone interview. The main purpose of the interview will be to see if a participant is eligible for a first follow up clinic visit. Questions will be asked concerning whether a participant has frequent knee pain, had a knee injury or surgery since the last visit, or if the participant is able to walk by themselves without a walker or without help from another person. We will also determine if the participant had knee or hip replacements that will be adjudicated at a later date. Once the questions described above have been asked, the interviewer will determine whether or not the participant is eligible for a clinic visit.

Participants eligible for a clinic visit will have the visit with or without x-ray.

1. Clinic visit with x-ray (potential cases): Participants who report frequent knee pain during the telephone interview and did not report frequent knee pain in that knee at baseline.
2. Clinic visit without x-ray (potential controls): Participant whose knee has been randomly selected as a potential control, they do not report frequent knee pain in that knee during telephone interview, and they are eligible for an OrthOne MRI of the potential control knee.

Information that will be needed during the telephone interview to help identify whether or not the participant will have a clinic visit, and what type of clinic visit they could potentially have, will be found on the MOST Data from Prior Visits Report First Follow up Telephone Interview (Appendix 1). For detailed information about how to use this report, see the Telephone Interview operations manual chapter (Volume II, Chapter 2C).

After the Telephone Interview is completed, you will know whether or not a participant is having a clinic visit with or without x-ray. This information will be collected and available for the Data from Prior Visits Report / First Follow up Clinic Visit, and will help the examiner to plan the participant's clinic visit and to know which exams the participant will be having (see Appendix 2).

1.2 Clinic visit

1.2.1 Clinic visit with x-ray clinic visit

Check the Data from Prior Visits Report / First Follow up Clinic Visit to see if participant is having a clinic visit with x-ray. If so, use the workbook for a clinic visit with x-ray. These participants will have a full clinic visit. They will complete a self-administered questionnaire, will be asked a series of knee symptoms questions, and bring in all prescription and non-prescription medications, supplements, and vitamins. They will be weighed, and will be asked a series of questions to determine if they are eligible for the OrthOne MRI. Clinic visits with x-ray

will include 1.0 T MRI scans of each knee (axial, sagittal, and coronal STIR sequences, and a 3-Point Dixon on knees that had a 3-Point Dixon sequence at baseline). If medical documentation is required before the participant has an MRI scan, this documentation should be reviewed and placed in the participant's chart. If the participant did not bring in the required documentation, and if all other MRI safety questions have been asked and the participant would be eligible for the MRI if the documentation is provided, ask them if they would be willing to come back on a different date with their documentation. If so, schedule an MRI visit and proceed with the clinic visit. However, do not scan the visit workbook until AFTER the MRI is obtained. Ideally, the MRI scan should be obtained within 4 weeks of the clinic visit. If the participant refuses to come back with documentation, proceed with their clinic visit minus the MRI and scan the forms as usual. Clinic visits with x-ray will also include a knee and hip examination and knee x-rays.

After the completion of each component of the visit, the Procedure Checklist should be completed (see Appendix 4).

1.2.2 Clinic visit without x-ray

Check the Data from Prior Visits Report / First Follow up Clinic Visit to see if participant is having a clinic visit without x-ray. If so, use the workbook for clinic visit without x-ray. Participant who don't have an x-ray will have a short clinic visit. They will complete a self-administered questionnaire, will be asked a series of knee symptoms questions, and bring in all prescription and non-prescription medications, supplements, and vitamins. They will be weighed, and will be asked a series of questions to determine if they are eligible for the OrthOne MRI. Clinic visits without x-ray will include 1.0 T MRI scan of the potential control knee (axial, sagittal, and coronal STIR sequences, and a 3-Point Dixon sequence on knees that had a 3-Point Dixon sequence at baseline). If medical documentation is required before the participant has an MRI scan, this documentation should be reviewed and placed in the participant's chart. If the participant did not bring in the required documentation, and if all other MRI safety questions have been asked and the participant would be eligible for the MRI if the documentation is provided, ask them if they would be willing to come back on a different date with their documentation. If so, schedule an MRI visit and proceed with the visit. However, do not scan the workbook until AFTER the MRI is obtained. Ideally, the MRI scan should be obtained within 4 weeks of the clinic visit. If the participant refuses to come back with documentation, proceed with their clinic visit minus the MRI and scan the forms as usual.

After the completion of each component of the clinic visit without x-ray, the Procedure Checklist should be completed (see Appendix 5).

2. Preparation for the first follow up clinic visit

2.1 Participant preparation

Each participant who comes to the MOST clinic visit will have been told about the contents of the visit during the phone conversation to schedule the clinic visit. Reminder letters should be mailed approximately 7 to 10 days prior to the visit to emphasize the following:

- date and time of the clinic visit

- that participants take all of their regular medications, as usual
- that participants should bring loose shorts (clinic visits with x-ray only)
- that participants should not wear jewelry to the clinic, if possible
- if participants use glasses, that they bring both their reading glasses and any glasses that are used for longer distances
- that participants who wear hearing aids should bring or wear them to the clinic
- that participants bring in prescription and non-prescription medications, supplements, and vitamins that they've taken during the last 30 days only
- those participants who reported having surgery or reported having an injury with a metal object, and who said that their doctor said it was safe to have an MRI, and who are willing to get documentation from their doctor, should be reminded to bring documentation that it is safe for them to have an MRI

Ideally, reminder phone calls should be made the day before the clinic visit. Please see an example of a reminder letter in Appendix 3.

2.2 First follow-up clinic visit preparation

At the time of the clinic visit, the following should be available for each participant:

- A Data from Prior Visits Report \ First Follow up Clinic Visit should be generated with information that will be needed for the clinic visit (see Appendix 2)
- Your local MOST participant contact information with the participant's contact information (address, phone number, proxy, next of kin, power of attorney, etc.)
- Multi-center Osteoarthritis Study Self-Administered Questionnaire Clinic (see Table 1)
- A Clinic Visit Workbook preprinted with the acrostic and MOST enrollment ID number (this workbook includes the MOST interview) (See Table 2).
- A MOST Participant Results Report to give the participant at the end of their clinic visit (Appendix 6)
- The participant's chart. Field centers should also keep "progress notes" in the participant's chart. Progress notes may be used to record examiner comments and questions, and to document protocol problems and their resolution. Each entry should be dated and signed by the examiner recording the note.

Table 1

Multi-center Osteoarthritis Study Self-Administered Questionnaire - Clinic

Instructions for completing questionnaire
 Name fields for double-checking that we know
 exactly who completed the form
 Joint pain and stiffness (homunculus)
 Knee symptoms – past 30 days
 Physical difficulty due to knee symptoms
 Hip symptoms
 Everyday activity limitations
 Health survey

Table 2

MOST Follow-up Clinic Workbooks**Clinic Visit with X-ray Workbook:**

Procedure Checklist
 Knee symptoms questions
 Medication use interview
 Medication inventory form
 Weight
 OrthOne 1.0 T Knee MRI eligibility
 OrthOne 1.0 T Knee MRI tracking
 Knee x-ray tracking
 Knee and hip pain examination forms
 Physician confirmatory knee and hip pain
 examination forms

Clinic Visit without X-ray Workbook:

Procedure Checklist
 Knee symptoms questions
 Medication use interview
 Medication inventory form
 Weight
 OrthOne 1.0 T Knee MRI eligibility
 OrthOne 1.0 T Knee MRI tracking

3. Clinic measurements**3.1 Self-administered questionnaire**

All participants with a clinic visit should complete the self-administered questionnaire. Allow the participant to complete the questionnaire in a quiet room without interruptions. Once the questionnaire is completed, the examiner will need to carefully review the form for accuracy and completeness.

See Self-Administered Questionnaire operations manual (Volume II, Chapter 2D) for detailed instructions.

3.2 MOST in-clinic follow-up interview

The MOST in-clinic follow-up interview will be administered to all participants who have a clinic visit.

See Interviewing Guidelines chapter for interview guidelines (Volume II, Chapter 2B).

3.3 Medication inventory

An accurate assessment of targeted current medication use is essential for several reasons: Some medications affect the tissues of the joints and bones; medication use increases with increasing pain; and documenting current vitamin use will be helpful in analyzing vitamin levels in the blood samples. During the first follow-up visit we will ask the same targeted questions about Vitamin E and C that were asked during the study enrollment visit. We will document on the Medication Inventory Form the use of over-the-counter and prescription medications used for pain or arthritis, and selected vitamins and calcium supplements taken during the 30 days before the first follow up clinic visit. We are specifically interested in how individual medications have been actually taken (during the preceding 30 days) rather than how they were prescribed or were intended to be taken. All participants who come into the clinic will have the medication evaluation.

See Medication Inventory operations manual for detailed procedures (Volume II, Chapter 3A).

3.4 Weight

Population-based studies have consistently shown a link between overweight or obesity and knee osteoarthritis. Weight is measured in kilograms using a standard balance beam scale. All participants who come in to the clinic will be weighed.

See Weight operations manual chapter (Volume II, 3B).

3.5 OrthOne MRI

Axial, sagittal, and coronal STIR scans will be done on both knees of participants who have a clinic visit with x-ray. Participants who have a clinic visit without x-ray will have MRI done only on the knee that is a potential control knee. 3 Point Dixon scans should be done on knees that had a 3 Point Dixon scan at baseline. A careful safety screening will be done before any scans are performed. The baseline scans will be reviewed before the follow-up scans are acquired.

See 1.0 T OrthOne Knee MRI operations manual chapter (Volume II, Chapter 3C) for detailed procedures.

3.6 Knee x-rays

Radiological assessment of structural abnormality of joints is the current standard for classifying OA for epidemiological research and a key component of clinical diagnosis. Numerous studies

have demonstrated a strong relationship between radiographic findings, symptoms, and outcome for knee OA.

To assess OA of the knee joints, the MOST study will include:

- a) a bilateral, standing semiflexed PA view of the tibiofemoral (TF) compartments of the knee joint,
- b) a unilateral weight-bearing, semiflexed lateral view of the knees that will provide information on the patellafemoral joint as well as the tibiofemoral joint space,

See Knee Radiography operations manual for detailed procedures (Volume II, Chapter 3D) of the knee x-ray exam.

3.7 Knee and hip examinations

Participants who have a clinic visit without x-ray will not have knee and hip examinations. A standardized physical examination will be performed on all participants who report frequent knee pain at the 15-month telephone interview and who did not report frequent knee pain at baseline (potential case) to try to ensure that this pain is emanating from the knee and not from the hip or other sites of the body. Sometimes chronic knee pain can be secondary to other conditions even when the x-ray is positive for knee OA. A few persons with hip OA will present with referred pain to the knee. In participants reporting knee pain, we will specifically attempt to rule out knee pain emanating from: the hip joint, pain down the lateral (outer) aspect of the thigh (trochanteric bursitis), and soft tissue tenderness around the knee (iliotibial band friction syndrome, anserine bursitis and fibromyalgia tenderness).

The joint exams will be performed in two stages. All of the participants who newly report frequent knee pain will have a knee and hip joint exam performed by a clinic examiner. The original protocol calls for a knee and hip joint confirmatory exam to be done by a physician for those participants with knee pain whose exam suggests their pain is not arising from the knee joint. However, in addition, during the 15-month follow-up visit, an ancillary study knee and hip confirmatory exam will be done for all participants having a joint exam. The physician exam will be done within 2 weeks of the original exam, and preferably on the same day as the first follow-up clinic visit.

See Joint Examination (Knee, Hip) operations manual for detailed procedures (Volume II, Chapter 3E).

4. Procedure checklist and exit interview

At the end of the first follow-up clinic visit, an exit interview should be performed to:

- Thank the participant. Be sure the participant knows how much we appreciate their participation.
- Answer questions. Some participants may have questions about various examinations.

- Make sure the Clinic Visit Procedure Checklist is completed; i.e., the header information including the MOST ID #; Acrostic, Date Form Completed, and Staff ID#. Confirm whether each measurement was completed. Record on the checklist whether or not each test was completed, was partially completed, whether or not the participant refused a test, or whether the test was not done for some other reason.
- Provide selected results (Appendix 6). Participants will be given the following results:
 - ⇒ Weight. Weight in pounds should be provided.
 - ⇒ Knee x-ray. If the participant had knee x-rays, let them know that they will receive the x-ray results report at a later date. Important abnormalities will be reported to participants.
- Summarize future contact with the study both for scheduled visits and endpoints. Participants should be reminded to immediately contact the clinic for the following events:
 - ⇒ Knee replacement
 - ⇒ Hip replacement
 - ⇒ New phone number or address

Suggested script: "It is very important to the study for us to know as soon as possible about whether you ever have a knee or hip replacement. Between study visits, we ask that you call the clinic at this number (xxx) xxx-xxxx, if you have partial or complete knee or hip replacement surgery or if you have a new phone number or address."

Appendix 1 Data from Prior Visits Report First Follow up Telephone Interview

Participant Name: _____

MOST Participant ID# : _____

Acrostic: _____

**MOST
Data from Prior Visits Report
First Follow up Telephone Interview****Visit dates**

1. Date of baseline enrollment visit:
2. Target date range for Telephone Interview:

Knee pain

3. Did participant have right knee pain at baseline?
4. Did participant have left knee pain at baseline?

Control status

5. Was participant's right knee selected as a control knee?
6. Was participant's left knee selected as a control knee?

Knee replacements

7. Was right knee replaced?
8. Was left knee replaced?

MRI history

9. Was participant eligible for an MRI at baseline?

Appendix 2 Data from Prior Visits Report First Follow up Clinic Visit

Participant Name: _____

MOST Participant ID#: _____

Acrostic: _____

**MOST
Data from Prior Visits Report
First Follow-up Clinic Visit****Case or control**

1. Is participant having a control or a case visit?

If control: **[THIS WILL NOT BE ON CASE DATA FROM PRIOR VISITS REPORT]**

- a. Was participant's right knee selected as a control knee?
- b. Was participant's left knee selected as a control knee?

OrthOne MRI

2. Was participant eligible for an MRI at the time of the follow up Telephone Interview?
3. Is medical documentation required for an MRI?
4. Was 3-point Dixon of right knee obtained at baseline?
(if Yes, obtain 3-point Dixon at follow-up, if right knee is being imaged)
5. Was 3-point Dixon of left knee obtained at baseline?
(if Yes, obtain 3-point Dixon at follow-up, if left knee is being imaged)

Knee replacements

6. Was right knee replaced?
7. Was left knee replaced?

Knee with metal implants

8. Right knee surgery since baselines visit with metal implants?
9. Left knee surgery since baseline visit with metal implants?

[EVERYTHING BELOW ONLY FOR CASES]**Knee X-ray beam angles for PA semiflexed (for participants having a case visit)**

10. Use the following beam angle(s):

Hip replacements

11. Was right hip replaced?
12. Was left hip replaced?

Knee pain

13. Did participant report right knee pain during telephone interview?
14. Did participant report left knee pain during telephone interview?

Appendix 3 First Follow-up Clinic Pre-Visit Instructions

Dear _____:

Your appointment for your MOST Clinic Visit has been scheduled for: _____, _____ at _____ a.m. at XXXXXXXXXX, XXXXXXXXXX (a map is enclosed). Parking is available in the garage attached to our clinic or van transportation will be provided as prearranged.

Please be sure to review these instructions for your upcoming clinic visit, since they are very important for the success of your tests:

- Read all enclosed materials.
- Take all your regular medications, as usual.
- [• It would be helpful if you bring loose shorts to clinic (***clinic visits with x-ray only***)].
- Do not wear jewelry to the clinic, if possible.
- If you have glasses, bring both your reading glasses and any glasses that you use for longer distances.
- If you have a hearing aid, bring it with you.
- A plastic bag has been provided for:
 - prescription and non-prescription medications, supplements, and vitamins that you have taken in the last 30 days only. Include tablets, capsules, shots, powders, liquid medications, patches, and ointments or salves.
- If, during your telephone interview, you were instructed to bring a copy of your medical records from your physician that says it is safe for you to have an MRI, please bring these records with you to clinic.

Thank you again for your very valuable help in this important research study! We look forward to seeing you again.

Please call XXX-XXXX if you have any questions about your visit.

Appendix 4 Clinic Visit with X-ray Procedure Checklist

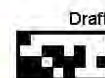


Clinic Visit with X-ray Procedure Checklist



MOST ID #	Acrostic	Date Form Completed	Staff ID#
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> / <input type="text"/> / <input type="text"/> <small>Month Day Year</small>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Measurement	Page #	Completed	Partially completed	Participant refused	Not done/ Not applicable
1. Were the knee symptoms questions administered?	2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Medications	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Weight	6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. OrthOne 1.0 T Knee MRI	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Knee X-ray	12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Knee and Hip Examinations	13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Physician Confirmatory Knee and Hip Examinations	19a	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Was the Self-Administered Questionnaire completed and checked?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Appendix 5 Clinic Visit without X-ray Procedure Checklist



**Clinic Visit without X-ray
Procedure Checklist**



MOST ID #	Acrostic	Date Form Completed			Staff ID#
		Month	Day	Year	

Measurement	Page #	Completed	Partially completed	Participant refused	Not done/ Not applicable
1. Were the knee symptoms questions administered?	2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Medications	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Weight	6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. OrthOne 1.0 T Knee MRI	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Was the Self-Administered Questionnaire completed and checked?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Appendix 6 MOST Examination Results

MOST First Follow up Participant Results

Participant Name: _____

(Please print)

Date of First Follow up Clinic Visit: _____ / _____ / _____
Month Day Year

Weight: _____ pounds

We would like to thank you for your participation in the MOST study. These tests were done for research purposes only and were not intended to diagnose any health problems. However, we encourage you to share these results with your doctor. If you have any questions, please call the MOST clinic at () _____.

MOST Knee X-ray Participant Results Report

Participant Name: _____

(Please print)

Date of knee x-ray: _____ / _____ / _____
Month Day Year

Thank you for participating in the MOST Study!

Arthritis of the knee is very common in people your age and often causes pain and disability. **Osteoarthritis**, also called degenerative arthritis, is the most common type of arthritis in older people. As part of MOST, we are using x-rays and Magnetic Resonance Imaging (MRI) to study the causes of knee pain and **osteoarthritis** (OA) of the knee. In people with knee pain, doctors usually get an x-ray to see if it is OA. X-rays do not show all of the problems in the knee that can cause pain and often x-rays show changes of osteoarthritis that do not need to be treated. Whether you need treatment depends on whether you are having knee pain or other knee symptoms.

The x-rays from this study were read by a trained non-MD reader. These include a PA and lateral films, both weight bearing. 'Possible osteoarthritis' is present when there is a tiny or possible osteophyte, an outgrowth of bone near the joint. 'Osteoarthritis' is present when there was a larger, definite osteophyte with or without narrowing of the joint space.

Results from your knee x-rays:The standing x-ray of your **RIGHT** knee showed:

- No osteoarthritis
 Possible osteoarthritis
 Osteoarthritis

The standing x-ray of your **LEFT** knee showed:

- No osteoarthritis
 Possible osteoarthritis
 Osteoarthritis

The use of knee MRI in OA is primarily a tool for research. Because the knee MRIs in MOST are being used for research, they are being looked at very carefully and in great detail. While we are grateful that you got an MRI to help with the study, unfortunately, it will not be possible to share these results with you. **It is very important to remember that these are research findings and your usual doctor visit would not include an MRI of the knee for arthritis pain.**

Thank you!

From National Institute on Aging - Arthritis Advice

Arthritis is one of the most common diseases in this country. It affects millions of adults and half of all people age 65 and older.

Arthritis causes pain and loss of movement. It can affect joints in any part of the body. It often is a chronic disease, which means that it can affect you over a long period of time. The more serious forms can cause swelling, warmth, redness, and pain.

There are more than 100 different kinds of arthritis and many different symptoms and treatments. Scientists do not know what causes most forms of arthritis. They understand some better than others.

Osteoarthritis (OA) mostly affects cartilage—the tissue that cushions the ends of bones within the joint. OA often affects the hands and the large weight-bearing joints of the body, such as knees and hips.

OA occurs when cartilage begins to fray, wear, and decay. In some cases, all of the cartilage may wear away between the bones of the joint, leaving bones that rub against each other. Symptoms can range from stiffness and mild pain that comes and goes, to severe joint pain. OA can cause:

- Joint pain,
- Less joint motion,
- And sometimes, disability.

Scientists think there may be several causes for OA in different joints. OA in the hands or hips may run in families. OA in the knees is linked with being overweight. Injuries or overuse may cause OA in joints such as knees, hips, or hands.

Treatment. Rest, exercise, a healthy, well-balanced diet, and learning the right way to use your joints are key parts of any arthritis treatment program. Treatment is different for each kind of arthritis.

Right now there are no treatments that cure OA, except surgery to replace joints. But improving the way you use your joints through rest and exercise and keeping your weight down will help you control the pain.

There are some drugs that help people manage OA pain. They are called COX-2 inhibitors and NSAIDs (nonsteroidal anti-inflammatory drugs such as ibuprofen and naproxen). These drugs reduce swelling without use of stronger drugs like cortisone or other steroids. COX-2 inhibitors are a newer type of drug. They work like NSAIDs but may cause fewer side effects.

Warning Signs

The warning signs of arthritis are:

- Swelling in one or more joints,
- Stiffness around the joints that lasts for at least 1 hour in the early morning,
- Constant or recurring pain or tenderness in a joint,
- Difficulty using or moving a joint normally,
- Warmth and redness in a joint.

If any one of these symptoms lasts longer than 2 weeks, see your regular doctor or a doctor who specializes in arthritis (a rheumatologist). The doctor will ask questions about the history of your symptoms and do a physical exam. The doctor may take x-rays or do lab tests before developing a treatment plan.

What Else Can You Do?

Along with taking the right medicines, exercise is key to managing arthritis symptoms. Daily exercise, such as walking or swimming, helps keep joints moving, reduces pain, and strengthens muscles around the joints. Rest also is important for joints affected by arthritis.

Three types of exercise are best for people with arthritis:

- **Range-of-motion** exercises (for example, dancing) help keep normal joint movement and relieve stiffness. This type of exercise also helps you stay flexible.
- **Strengthening** exercises (for example, weight training) help keep or increase muscle strength. Strong muscles can help support and protect joints affected by arthritis.
- **Aerobic or endurance** exercises (for example, bicycle riding) improve cardiovascular fitness, help control weight, and improve overall function. Some studies show that aerobic exercise also may reduce swelling in some joints.

The National Institute on Aging (NIA) has a 48-minute video showing you how to start and stick with a safe exercise program. The Institute also has an 80-page companion booklet. Call 1-800-222-2225 (TTY: 1-800-222-4225) for more information. Before beginning any exercise program, talk with your doctor or health care worker.

Along with exercise, some people find other ways to help ease the pain around joints. These include applying heat or cold, soaking in a warm bath, swimming in a heated pool, and controlling or losing weight. Weight control is key for people who have arthritis because extra weight puts extra pressure on many joints. Weight loss can lower stress on joints and help prevent more damage.

Your doctor may suggest surgery when damage to the joints becomes disabling or when other treatments fail to reduce pain. Surgeons can repair or replace damaged joints with artificial ones. In the most common operations, doctors replace hips and knees.

Unproven Remedies

Many people with arthritis try remedies that have not been tested. Some of these remedies, such as snake venom, are harmful. Others, such as copper bracelets, are harmless but also useless. The safety of many unproven remedies is unknown.

Some people try taking dietary supplements, such as Glucosamine and Chondroitin, to ease arthritis pain. Scientists are studying these and other alternative treatments to find out if they work and are safe. More information is needed before any recommendations can be made.

Here are some signs that a remedy may be unproven:

- The remedy claims that a treatment, like a lotion or cream works, for all types of arthritis and other diseases;
- Scientific support comes from only one research study; or
- The label has no directions for use or warnings about side effects.

For more information on arthritis contact:

**National Institute of Arthritis and Musculoskeletal and Skin Diseases
NIAMS Information Clearinghouse**

1 AMS Circle

Bethesda, Maryland 20892-3675

301-495-4484

877-22-NIAMS (226-4267)

TTY: 301-565-2966

Fax: 301-718-6366

E-mail: niamsinfo@mail.nih.gov

<http://www.niams.nih.gov>

American College of Rheumatology/Association of Rheumatology Health Professionals
1800 Century Place
Suite 250
Atlanta, GA 30345-4300
404-633-3777
Fax: 404-633-1870
E-mail: acr@rheumatology.org <http://www.rheumatology.org>

Arthritis Foundation
P.O. Box 7669
Atlanta, GA 30357-0669
1-800-283-7800, or check the telephone directory for your local chapter
Fax: 404-872-0457
E-mail: help@arthritis.org <http://www.arthritis.org>

For more information about health and aging, call or write:

**National Institute on Aging
Information Center**
P.O. Box 8057
Gaithersburg, MD 20898-8057
1-800-222-2225
1-800-222-4225 (TTY)
E-mail: niainfo@jbs1.com <http://www.nia.nih.gov>

National Institute on Aging
U. S. Department of Health and Human Services
National Institutes of Health