PILGRIM HOSPITAL
Department of orthopaedics

TOTAL HIP REPLACEMENT

Patient Information & Exercise Folder

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Hip replacement and hip revision

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This factsheet is for people who are planning to have a hip replacement operation or hip revision surgery, or who would like information about it.

Hip replacement operation involves replacing a hip joint that has been damaged or worn away, usually by arthritis or injury. Hip revision (or repeat hip replacement) involves replacing an artificial hip joint that has become loose, infected or worn out.

You will meet the surgeon carrying out your particular procedure to discuss your care. It may differ from what is described here as it will be designed to meet your individual needs.

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About hip replacement

Your hip is a ball and socket joint. Normally, the ball at the top of your thigh bone (femur) moves smoothly in the socket of your pelvis (hip) on a lining of cartilage. The cartilage stops the bones from rubbing together. If the cartilage is worn away, the underlying bone is exposed and your joint becomes painful and stiff. As a result walking and moving around becomes painful.

A new hip joint can help to improve your mobility and reduce pain.

Types of artificial hip

Artificial hip parts can be made of metal, ceramic or plastic. Hip joints can be fixed in place using a special substance called 'bone cement'. Alternatively, they may be designed so that your own bone grows onto the metal. These 'uncemented' hips can be coated with a type of bone mineral (hydroxyapatite) or can be made...
from a material that has lots of tiny holes (porous coating). This encourages your bone to grow into the artificial joint and fix it in place.

**Hip revision surgery**

During your original hip replacement, your hip joint was replaced with artificial hip parts. These usually last from 10 to 20 years, after which they need replacing.

Renewing an artificial hip joint is more complicated than the original operation because the existing artificial hip joint will need to be taken out before the new one is fitted. If the hip has worn loose then this may not be too difficult for your surgeon, but if it is still bonded to your bone then removing the old components can be a challenge.

You may find that your new joint, although a big improvement on your old joint, may not improve your life as much as your original hip operation. This may be because the muscles can take a long time to recover from the build-up of scar tissue and repeat surgery.

**What are the alternatives to hip replacement?**

Surgery is usually recommended only if non-surgical treatments, such as taking painkillers (eg paracetamol) or anti-inflammatories (eg ibuprofen), or using physical aids like a walking stick, no longer help to reduce your pain or improve mobility.

**Hip resurfacing** may be a better option for people with stronger bones. In this operation the surfaces of the ball and socket are covered with metal caps.

**Preparing for your operation**

Your surgeon will explain how to prepare for your operation. For example, if you smoke you will be asked to stop, as smoking increases your risk of getting a chest and wound infection, which can slow your recovery.

The operation is usually done under [general anaesthesia](https://www.nhs.uk/conditions/anesthesia/). This means you will be asleep during the operation. Alternatively you may have the surgery under spinal or [epidural anaesthesia](https://www.nhs.uk/conditions/anesthesia/). This completely blocks feeling from below your waist and you stay awake during the operation. Your surgeon will advise you which type of anaesthesia is most suitable for you. Often people have a combination so that they are asleep, but the spinal/epidural anaesthetic will ease any pain immediately after surgery.

If you're having a general anaesthetic, you will be asked to follow fasting instructions. This means not eating or drinking, typically for about six hours beforehand. However, it's important to follow your anaesthetist's advice.

Your surgeon will discuss with you what will happen before, during and after your procedure, and any pain you might have. This is your opportunity to understand what will happen, and you can help yourself by preparing questions to ask about the risks, benefits and any alternatives to the procedure. This will help you to be informed, so you can give your consent, by signing a consent form, for the procedure to go ahead.

You may be asked to give your consent to have your name on the National Joint Register, which is used to follow up the safety, durability and effectiveness of joint replacements and implants.

You may be asked to wear [compression stockings](https://www.nhs.uk/conditions/anesthesia/) to help prevent blood clots forming in the veins in your legs ([deep vein thrombosis](https://www.nhs.uk/conditions/anesthesia/), DVT).

**About the operation**

A hip replacement usually takes around two hours.

Your surgeon will make a cut (20 to 30cm long) over your hip and thigh. He or she will then separate the ball and socket (hip joint).

The ball at the top end of your thigh bone (the femoral head) will be removed and a replacement ball on a stem will be inserted into your thigh bone. Your hip socket will be hollowed out to make a shallow cup and an artificial socket will be placed into it. The two halves of the hip joint are then put back together (the ball is put into the socket).
Your surgeon will close the skin cut with stitches or clips and cover it with a dressing.

It may be possible for your surgeon to make a smaller cut over your hip and thigh. This type of operation (minimally invasive hip replacement) is carried out using specially designed surgical instruments. It isn’t suitable for everyone - ask your surgeon if it’s an option for you.

What to expect afterwards

You will need to rest until the effects of the anaesthetic have passed. You may not be able to feel or move your legs for several hours after a spinal or epidural anaesthetic. You may need pain relief to help with any discomfort as the anaesthetic wears off.

A special pillow may be placed between your legs to hold your hip joint still and stop it from dislocating.

You may be given medicine (injection or tablets) to prevent DVT, such as rivaroxaban or dabigatran. You will be given this shortly after your surgery and then you may need to take it for a few weeks.

A physiotherapist (a health professional who specialises in movement and mobility) will usually visit you each day to guide you through exercises that are designed to help your recovery.

You will stay in hospital until you’re able to walk safely with the aid of sticks or crutches. This is usually about five days. However, if you’re generally fit and well, your surgeon may suggest you do an accelerated rehabilitation programme, where you start walking on the day of the operation and are discharged within one to three days.

When you’re ready to go home, you will need to arrange for someone to drive you.

Your nurse will give you some advice about caring for your hip and a date for a follow-up appointment before you go home.

Most skin stitches or clips will need to be removed after 12 to 14 days. Dissolving skin stitches don’t need to be removed.

Recovering from hip replacement surgery

If you need pain relief, you can take over-the-counter painkillers such as paracetamol or ibuprofen. Always read the patient information that comes with your medicine and if you have any questions, ask your pharmacist for advice.

The exercises recommended by your physiotherapist are a crucial part of your recovery, so it’s essential that you continue to do them.

There are certain movements that you shouldn’t do in the first six weeks. For example, don’t cross your legs or twist your hip inwards and outwards. This is to reduce strain on your scar and to reduce the risk of a dislocation. Your physiotherapist will give you further advice and tips to protect your hip.

You should be able to move around your home and manage stairs. You will find some routine daily activities, such as shopping, difficult for a few weeks and will need to ask for help. You will need to use crutches for about four to six weeks.

You can usually return to light work after about six weeks. But if your work involves a lot of standing or lifting, you may need to stay off for longer.

Follow your surgeon’s advice about driving as the length of time before you’re fit to drive will depend on several factors, including which leg has been operated on and whether your car is automatic.

What are the risks?

Hip replacement is commonly performed and generally safe. However, in order to make an informed decision and give your consent, you need to be aware of the possible side-effects and the risk of complications.
Side-effects

Side-effects are the unwanted but mostly temporary effects you may get after having the procedure.

Your hip will feel sore for several weeks and you may have some temporary pain and swelling, both in the thigh and also in the ankle.

Complications

Complications are when problems occur during or after the operation. Most people having hip surgery aren't affected. The possible complications of any operation include an unexpected reaction to the anaesthetic, excessive bleeding or developing a blood clot, usually in a vein in the leg (deep vein thrombosis, DVT). Specific complications of hip replacement are uncommon, but can include the following:

- Infection - you will be given antibiotics during and after surgery to help prevent this.
- Joint dislocation - this is most likely to happen immediately after your surgery and you may need another operation to treat this.
- Difference in leg length - your leg may be slightly shorter or longer and you may need to wear a raised shoe on the shorter side to correct your balance.
- Hip fracture - tiny cracks can occur in your bone while fitting the new joint. These usually heal, but sometimes your bone can fracture and require further surgery.
- Unstable joint - the hip joint may become loose and you may require further surgery to correct this.
- Nerve damage - this can quite often result in numbness around your scar, but rarely the sciatic nerve may be stretched and this can leave weakness in the foot (usually temporary).

The artificial hip joint usually lasts between 10 and 20 years, after which you may need to have it replaced. The exact risks are specific to you and differ for every person, so we haven't included statistics here. Ask your surgeon to explain how these risks apply to you.

Activities After Hip Replacement (from aaos.org)

Activities in the Hospital
Discharge
Activities at Home
Dos and Don'ts

After undergoing hip replacement, you may expect your lifestyle after the surgery to be a lot like the way it was before, but without the pain. In many ways, you are right, but it will take time. You need to be a partner in the healing process to ensure a successful outcome.

You will be able to resume most activities; however, you may have to change how you do them. For example, you will have to learn new ways of bending down that keep your new hip safe. The suggestions you find here will help you enjoy your new hip while you safely resume your daily routines.

Activities in the Hospital

Hip replacement is major surgery and, for the first few days, you will want to take it easy. However, it is important that you start some activities immediately to offset the effects of the anesthetic, help the healing, and keep blood clots from forming in your leg veins. Your doctor and physical and occupational therapists can give you specific instructions on wound care, pain control, diet, and exercise. They should also indicate how much weight you can put on your affected leg.
Pain management is important in your early recovery. Although pain after surgery is quite variable and not entirely predictable, it does need to be controlled with medication. Initially, you may get pain medication through an IV (intravenous) tube that you can control to get the amount of medication you need. It is easier to prevent pain than to control it and you do not have to worry about becoming addicted to the medication; after a day or two, injections or pills will replace the IV tube.

Besides the pain medication, you will also need antibiotics and blood-thinners to help prevent blood clots from forming in the veins of your thigh and calf.

You may lose your appetite and feel nauseous or constipated for a couple of days. These are ordinary reactions. You may have a urinary catheter inserted during surgery and be given stool softeners or laxatives to ease the constipation caused by the pain medication after surgery. You will be taught to do breathing exercises to keep your chest and lungs clear.

A physical therapist will visit you, usually on the day after your surgery, and teach you how to use your new joint. It is important that you get up and about as soon as possible after hip replacement surgery. Even in bed, you can pedal your feet and pump your ankles regularly to keep blood flowing in your legs. You may have to wear elastic stockings and/or a pneumatic sleeve to help keep blood flowing freely.

Discharge

Your hospital stay may last from 3 to 10 days, until you can perform certain skills you will need to use at home. If you go straight home, you will need help at home for several weeks. If going straight home is too difficult, you may need to spend some time at a rehabilitation center.

The following tips can make your homecoming easier.

- In the kitchen (and in other rooms as well), place items you use frequently within reach so you do not have to reach up or bend down.
- Rearrange furniture so you can get about on a walker or crutches. You may want to change rooms (make the living room your bedroom, for example) to stay off the stairs.
- Get a good chair—one that is firm and has a higher-than-average seat. This type of chair is safer and more comfortable than a low, soft-cushioned chair.

- Remove any throw rugs or area rugs that could cause you to slip. Securely fasten electrical cords around the perimeter of the room.
• Install a shower chair, grab bar, and raised toilet in the bathroom.
• Use assistive devices such as a long-handled shoe horn, a long-handled sponge, and a grabbing tool or reacher to avoid bending too far over. Wear a big-pocket shirt or soft shoulder bag for carrying things.
• Set up a “recovery center” in your home, with a phone, television remote control, radio, facial tissues, wastebasket, pitcher and glass, reading materials, and medications within easy reach.

Activities at Home

• Keep the skin clean and dry. The dressing applied in the hospital should be changed as necessary. Ask for instructions on how to change the dressing if you are not sure.
• If you have stitches that need to be removed, your surgeon will give you specific instructions about the incision and when you can bathe. X-rays will be taken later to ensure that the joint is healing properly.
• Notify your doctor if the wound appears red or begins to drain.
• Take your temperature twice daily and notify your doctor if it exceeds 100.5°F.
• Swelling is normal for the first 3 to 6 months after surgery. Elevate your leg slightly and apply an ice pack for 15 to 20 minutes at a time, a few times a day.
• Calf pain, chest pain, and shortness of breath are signs of a possible blood clot. Notify your doctor immediately if you notice any of these symptoms.

Medication
Take all medications as directed. You will probably be given a blood thinner to prevent life-threatening clots from forming in the veins of your calf and thigh. If a blood clot forms and then breaks free, it could travel to your lungs, resulting in a pulmonary embolism, a potentially fatal condition.

Because you have an artificial joint, it is especially important to prevent any bacterial infections from settling in your joint implant. You should get a medical alert card and take antibiotics whenever there is the possibility of a bacterial infection, such as when you have dental work. Be sure to notify your dentist that you have a joint implant and let your doctor know if your dentist schedules an extraction, periodontal work, dental implant, or root canal procedure. The American Academy of Orthopaedic Surgeons has prepared recommendations about using antibiotics to prevent joint infection when you must have dental work.

Diet
By the time you leave the hospital, you should be eating your normal diet. Your physician may recommend that you take iron and vitamin supplements. Continue to drink plenty of fluids and avoid excessive intake of vitamin K while you are taking the blood-thinner medication. Foods rich in vitamin K include broccoli, cauliflower, Brussels sprouts, liver, green beans, garbanzo beans, lentils, soybeans, soybean oil, spinach, kale, lettuce, turnip greens, cabbage, and onions. Try to limit your intake of coffee and alcohol. You should watch your weight to avoid putting more stress on the joint.

Resuming Normal Activities
Once you get home, you should stay active. The key is not to overdo it! While you can expect some good days and some bad days, you should notice a gradual improvement over time. Generally, the following guidelines will apply:

Weight Bearing
Be sure to discuss weight bearing with your physician and physical therapist. Their recommendations will depend on the type of implant and other factors in your situation. Revision hip surgery (replacing an artificial joint that fails) may require that you wait longer until putting weight on the leg.

• If you have undergone uncemented hip replacement, your surgeon will give you specific instructions about the use of crutches or a walker and when you can put weight on the leg. By 8 weeks, you should be weight bearing with only a little support. This protects the joint and gives the bone time to grow into the porous coating of the implant.
If you have undergone cemented or hybrid hip replacement, you can put some weight on the leg immediately using a can or walker, and you should continue to use some support for 4 to 6 weeks to help the muscles recover.

Driving
You can begin driving an automatic shift car in 4 to 8 weeks, provided you are no longer taking narcotic pain medication. If you have a stick-shift car and your right hip was replaced, do not begin driving until your doctor says you can. The physical therapist will show you how to slide in and out of the car safely. Placing a plastic bag on the seat can help.

Sex
Some form of sexual relations can be safely resumed 4 to 6 weeks after surgery. Ask your doctor if you need more information.

Sleeping Positions
Sleep on your back with your legs slightly apart or on your side with an abduction pillow, a regular pillow between your knees, or a knee immobilizer at night. Be sure to use the pillow for at least 6 weeks, or until your doctor says you can do without it. Sleeping on your stomach should be all right.

Sitting
For at least the first 3 months, sit only in chairs that have arms. Do not sit on low chairs, low stools, or reclining chairs. Do not cross your legs at the knees. The physical therapist will show you how to sit and stand from a chair, keeping your affected leg out in front of you. Get up and move around on a regular basis—at least once every hour.

Climbing Stairs
Stair climbing should be limited if possible until healing is far enough along. If you must go up stairs:

- The unaffected leg should step up first.
- Then bring the affected leg up to the same step.
- Then bring your crutches or canes up.

To go down stairs, reverse the process.

- Put your crutches or canes on the lower step.
- Next, bring the affected leg down to that step.
- Finally step down with the unaffected leg.

Return to Work
Depending on the type of activities you perform, it may be as long as 3 to 6 months before you can return to work.

Other Activities
Walk as much as you like once your doctor gives you the go-ahead, but remember that walking is no substitute for your prescribed exercises. Walking with a pair of trekking poles is helpful and adds as much as 40% to the exercise you get when you walk.

Swimming is also recommended; you can begin as soon as the sutures have been removed and the wound is healed, approximately 6 to 8 weeks after surgery. Using a pair of training fins may make swimming a more enjoyable and effective exercise.

Acceptable activities include dancing, golfing (with spikeless shoes and a cart), and bicycling (on level surfaces).

Avoid activities that involve impact stress on the joint (such as tennis and badminton), contact sports (such as football and baseball), squash or racquetball, jumping, or jogging.
Lifting weights is not a problem, but carrying heavy, awkward objects that cause you to stagger is not advised, especially if you must go up and down stairs or slopes. Plan ahead to have a cart, dolly, or hand-truck available.

Dos and Don'ts

Dos and don'ts (precautions) vary depending on the orthopaedic surgeon's approach. Your doctor and physical therapist will provide you with a list of dos and don'ts to remember with your new hip. These precautions will help to prevent the new joint from dislocating and to ensure proper healing. Here are some of the most common precautions:

The Don'ts

- Don't cross your legs at the knees for at least 8 weeks.
- Don't bring your knee up higher than your hip.
- Don't lean forward while sitting or as you sit down.
- Don't try to pick up something on the floor while you are sitting.
- Don't turn your feet excessively inward or outward when you bend down.
- Don't reach down to pull up blankets when lying in bed.
- Don't bend at the waist beyond 90°.
- Don't stand pigeon-toed.
- Don't kneel on the knee on the unoperated leg (the good side).
- Don't use pain as a guide for what you may or may not do.

The Dos

- Do keep the leg facing forward.
- Do keep the affected leg in front as you sit or stand.
- Do use a high kitchen or barstool in the kitchen.
- Do kneel on the knee on the operated leg (the bad side).
- Do use ice to reduce pain and swelling, but remember that ice will diminish sensation. Don't apply ice directly to the skin; use an ice pack or wrap it in a damp towel.
- Do apply heat before exercising to assist with range of motion. Use a heating pad or hot, damp towel for 15 to 20 minutes.
- Do cut back on your exercises if your muscles begin to ache, but don't stop doing them!

Total Hip Replacement Exercise Guide

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- Ankle Rotations
- Bed-Supported Knee Bends
- Buttock Contractions
- Abduction Exercise
- Quadriceps Set
- Straight Leg Raises
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- Standing Knee Raises
- Standing Hip Abduction
- Standing Hip Extensions

Walking and Early Activity
- Walking with Walker, Full Weightbearing
- Walking with Cane or Crutch
- Stair Climbing and Descending
- Advanced Exercises and Activities
- Elastic Tube Exercises
- Exercycling
- Walking
Regular exercises to restore your normal hip motion and strength and a gradual return to everyday activities are important for your full recovery. Your orthopaedic surgeon and physical therapist may recommend that you exercise 20 to 30 minutes 2 or 3 times a day during your early recovery. They may suggest some of the following exercises.

**Early Postoperative Exercises**

These exercises are important for increasing circulation to your legs and feet to prevent blood clots. They also are important to strengthen muscles and to improve your hip movement. You may begin these exercises in the recovery room shortly after surgery. It may feel uncomfortable at first, but these exercises will speed your recovery and reduce your postoperative pain. These exercises should be done as you lie on your back with your legs spread slightly apart.

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**Ankle Pumps**

Slowly push your foot up and down. Do this exercise several times as often as every 5 or 10 minutes. This exercise can begin immediately after surgery and continue until you are fully recovered.

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**Ankle Rotations**

Move your ankle inward toward your other foot and then outward away from your other foot. Repeat 5 times in each direction 3 or 4 times a day.

**Top of page**

**Bed-Supported Knee Bends**

Slide your heel toward your buttocks, bending your knee and keeping your heel on the bed. Do not let your knee roll inward. Repeat 10 times 3 or 4 times a day

**Top of page**

**Buttock Contractions**

Tighten buttock muscles and hold to a count of 5.
Repeat 10 times 3 or 4 times a day

**Abduction Exercise**

Slide your leg out to the side as far as you can and then back.

Repeat 10 times 3 or 4 times a day

**Quadriceps Set**

Tighten your thigh muscle. Try to straighten your knee. Hold for 5 to 10 seconds.

Repeat this exercise 10 times during a 10-minute period.

Continue until your thigh feels fatigued.

**Straight Leg Raises**

Tighten your thigh muscle with your knee fully straightened on the bed. As your thigh muscle tightens, lift your leg several inches off the bed. Hold for 5 to 10 seconds. Slowly lower.

Repeat until your thigh feels fatigued.

**Standing Exercises**

Soon after your surgery, you will be out of bed and able to stand. You will require help since you may become dizzy the first several times you stand. As you regain your strength, you will be able to stand independently. While doing these standing exercises, make sure you are holding on to a firm surface such as a bar attached to your bed or a wall.

**Standing Knee Raises**
Lift your operated leg toward your chest. Do not lift your knee higher than your waist. Hold for 2 or 3 counts and put your leg down.

Repeat 10 times 3 or 4 times a day

Standing Hip Abduction

Be sure your hip, knee and foot are pointing straight forward. Keep your body straight. With your knee straight, lift your leg out to the side. Slowly lower your leg so your foot is back on the floor.

Repeat 10 times 3 or 4 times a day

Standing Hip Extensions
Lift your operated leg backward slowly. Try to keep your back straight. Hold for 2 or 3 counts. Return your foot to the floor.

Repeat 10 times 3 or 4 times a day

Walking and Early Activity

Soon after surgery, you will begin to walk short distances in your hospital room and perform light everyday activities. This early activity helps your recovery by helping your hip muscles regain strength and movement.

Walking with Walker, Full Weightbearing

Stand comfortably and erect with your weight evenly balanced on your walker or crutches. Move your walker or crutches forward a short distance. Then move forward, lifting your operated leg so that the heel of your foot will touch the floor first. As you move, your knee and ankle will bend and your entire foot will rest evenly on the floor. As you complete the step allow your toe to lift off the floor. Move the walker again and your knee and hip will again reach forward for your next step. Remember, touch your heel first, then flatten your foot, then lift your toes off the floor. Try to walk as smoothly as you can. Don't hurry. As your muscle strength and endurance improve, you may spend more time walking. Gradually, you will put more and more weight on your leg.

Walking with Cane or Crutch

A walker is often used for the first several weeks to help your balance and to avoid falls. A cane or a crutch is then used for several more weeks until your full strength and balance skills have returned. Use the cane or crutch in the hand opposite the operated hip. You are ready to use a cane or single crutch when you can stand and balance without your walker, when your weight is placed fully on both feet, and when you are no longer leaning on your hands while using your walker.

Stair Climbing and Descending
The ability to go up and down stairs requires both flexibility and strength. At first, you will need a handrail for support and you will only be able to go one step at a time. Always lead up the stairs with your good leg and down the stairs with your operated leg. Remember “up with the good” and “down with the bad.” You may want to have someone help you until you have regained most of your strength and mobility. Stair climbing is an excellent strengthening and endurance activity. Do not try to climb steps higher than those of the standard height of seven inches and always use the handrail for balance.

**Advanced Exercises and Activities**

A full recovery will take many months. The pain from your problem hip before your surgery and the pain and swelling after surgery have weakened your hip muscles. The following exercises and activities will help your hip muscles recover fully.

These exercises should be done in 10 repetitions four times a day with one end of the tubing around the ankle of your operated leg and the opposite end of the tubing attached to a stationary object such as a locked door or heavy furniture. Hold on to a chair or bar for balance.
Resistive Hip Flexion

Stand with your feet slightly apart. Bring your operated leg forward keeping the knee straight. Allow your leg to return to its previous position.

Resistive Hip Abduction

Stand sideways from the door and extend your operated leg out to the side. Allow your leg to return to its previous position.

Resistive Hip Extensions

Face the door or heavy object to which the tubing is attached and pull your leg straight back. Allow your leg to return to its previous position.

Exercycling
Exercycling is an excellent activity to help you regain muscle strength and hip mobility. Adjust the seat height so that the bottom of your foot just touches the pedal with your knee almost straight. Pedal backwards at first. Pedal forward only after comfortable cycling motion is possible backwards. As you become stronger (at about 4 to 6 weeks) slowly increase the tension on the exercycle. Exercycle forward 10 to 15 minutes twice a day, gradually building up to 20 to 30 minutes 3 to 4 times a week.

Walking

Take a cane with you until you have regained your balance skills. In the beginning, walk 5 or 10 minutes 3 or 4 times a day. As your strength and endurance improves, you can walk for 20 or 30 minutes 2 or 3 times a day. Once you have fully recovered, regular walks, 20 or 30 minutes 3 or 4 times a week, will help maintain your strength.

AAOS does not review or endorse accuracy or effectiveness of materials, treatments or physicians.