



Patient Guide

for **KNEE** Replacement Surgery

M+ Middlesex Health
Center for Joint Replacement
+ Spine Surgery

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Welcome

Thank you for choosing Middlesex Health for your joint replacement surgery. Our highly-skilled team of surgeons, specialty-trained physical and occupational therapists, and award-winning nurses are honored to provide your care!

We have built an exceptional program, using the most advanced technology and research, designed to exceed your expectations and give you the best outcome. The Middlesex Health Joint Replacement Program is at the forefront of advanced, high-quality and personalized care. Our exceptional rankings on patient surveys reflect the overwhelmingly positive experiences of our patients.

Our number one goal is returning you to the lifestyle you desire, and our highest priority is your safety. We look forward to your speedy and successful recovery, and wish you all the best.

Best regards,



David J Hergan, MD, MS
Director, Total Joint Replacement Program
Attending Orthopedic Surgeon

This guide will tell you:

- + What to expect every step of the way
- + What you need to do
- + How to care for your new joint

Remember, this is just a guide. Your physician, physician assistant, nurses or therapists may add to, or change any of the recommendations to better meet your specific needs. Bring this Patient Guide to all appointments, Total Joint Class, and for your stay in the hospital.



WHAT'S A NURSE NAVIGATOR?

Here at Middlesex Health, we pride ourselves in providing seamless care. Your Nurse Navigator is your “one stop” resource during the joint replacement process. The Nurse Navigator will help guide you through the joint replacement process and teach you all you need to know. You can reach the Nurse Navigator at 860-358-8580.

Fernanda Anastasas, BSN, RN
Orthopedic Nurse Navigator
860-358-8580
fernanda.anastasas@midhosp.org

YOUR JOINT REPLACEMENT TEAM

Your team is a group of skilled, experienced, dedicated staff who work together to provide you with the best care possible.

Orthopedic surgeons perform the actual replacement of your damaged joint.

Anesthesiologists give you medicine to stop pain during surgery, and monitor your breathing, heartbeat and other vital signs throughout surgery.

Orthopedic Physician Assistants (PAs) assist with your surgery, prescribe medicines, follow your progress throughout your hospital stay and educate you on your plan of care.

Hospitalists are doctors who specialize in the care of patients in the hospital.

Registered Nurses (RNs) work with others on your team to give you the safest patient-centered care and to design a plan of care that is best for you. They may assess and track your progress, give medicines, teach you about your current condition and how to care for yourself at home.

Nurse Managers are RNs who oversee the staff and manage activities. Speak to the Nurse Manager with any questions or comments you may have about your care or your hospital stay. You can contact the Nurse Manager at 860-358-8269.

Patient Care Technicians (PCTs) perform tasks such as checking your blood pressure and temperature during your hospital stay. They also help with bathing, bed positions and walking.

Physical Therapists (PTs) assess how well you are moving and teach exercises to increase strength and range of motion.

Occupational Therapists (OTs) assess your ability to do daily tasks such as eating, bathing and dressing. They will teach you how to manage these tasks after your surgery.

Case Managers are nurses who help you to plan for your care after you leave the hospital. They will work with you to ensure your discharge is timely and safe, and that you are well prepared to leave after your surgery.

Advanced Practice Registered Nurse (APRNs) will meet with you in our Pre-procedure Evaluation and Assessment Coordination Clinic (PEAC) before your surgery. These APRNs collect and evaluate your medical information. They work with your primary care team and the departments of Orthopedics and Anesthesia to ensure you are ready for surgery.

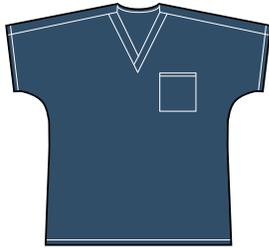
Overview of our services

Each step of our program is designed for the best results and a successful discharge from the hospital after surgery. Features of the program include:

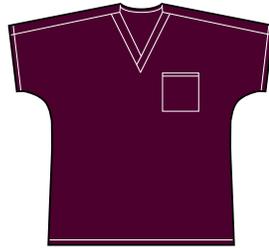
- + Dedicated nursing staff and therapists trained to work with joint patients.
- + Private rooms.
- + Nurse Navigators who will help guide you through the joint replacement process.
- + A comprehensive Patient Guide for you to follow from six weeks before surgery until three months after surgery and beyond.
- + Educational information about what to expect before, during and after your hospital stay.
- + Pre-procedure Evaluation and Assessment Coordination Clinic (PEAC) provides you with a seamless process. You will have an appointment in our PEAC clinic with an APRN who will complete your pre-operative exam.
- + Discharge team who work together to make sure you have a safe and smooth discharge after your hospital stay. The team includes hospitalists, physician assistants, therapists, registered nurses and case managers.

CAREGIVER IDENTIFICATION PROGRAM

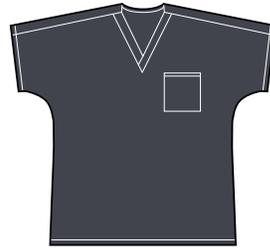
Our staff wear color-coded uniforms



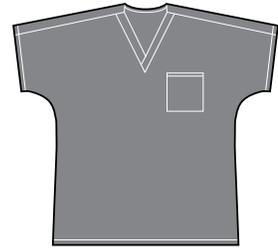
Registered Nurse (RN)



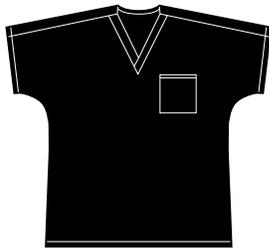
Patient Care Technician, Sitter,
Home Health Aide



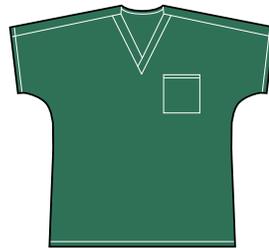
Transport



Physical Rehabilitation



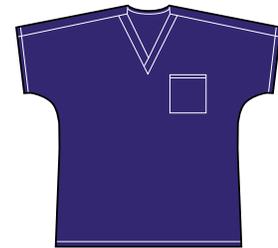
Diagnostic Imaging
(Radiology)



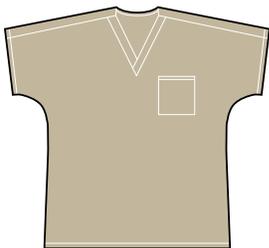
Respiratory Therapist,
Cardiac Ultrasound,
Neurodiagnostic Technologist,
Sleep Technologist



Pharmacy Technician,
Radiation Oncology



Laboratory



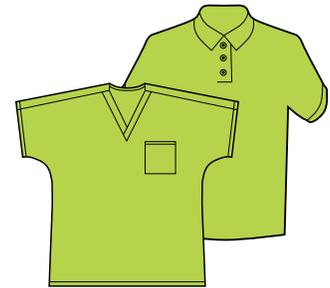
Secretary, Registration



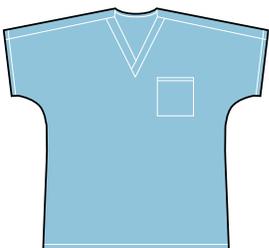
Volunteer



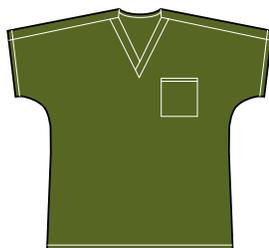
Food Services



Environmental Services



Dietitian



Social Work



Pharmacist, Social Worker,
Case Manager, Nurse Navigator,
Crisis Clinician, Clinical Dietitian,
Clinical Manager



Physician,
Physician Assistant, APRN

Short White Coat

Long White Coat/ Navy Blue Scrub

What Is total knee replacement?

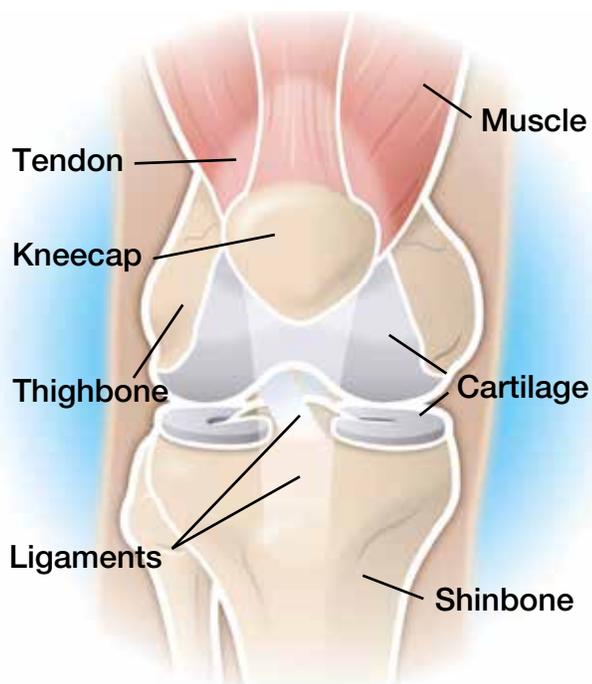
How Your Knee Works

A healthy knee bends easily and rotates slightly. The joint absorbs stress and moves smoothly. This allows you to walk, squat, and turn without pain.

A Healthy Knee

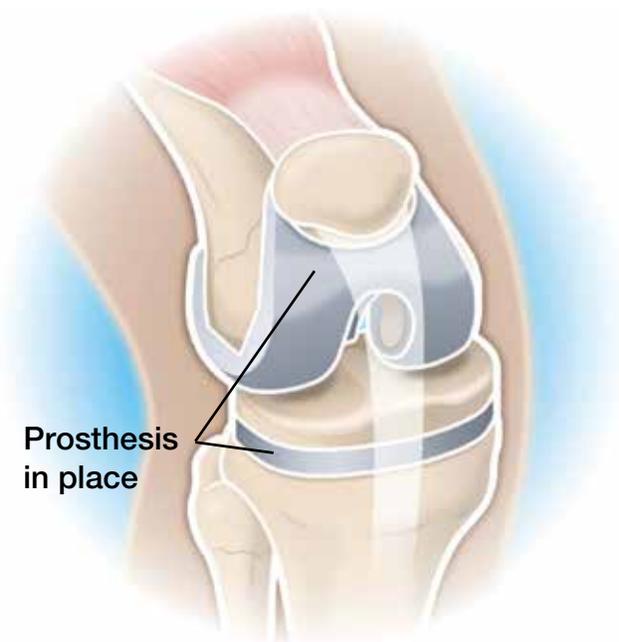
The knee is a hinge joint, formed where the thighbone (femur) and the shinbone (tibia) meet. The joint is covered with smooth tissue and powered by large muscles. When all the parts listed below are healthy, a knee should move easily.

- + Cartilage is a layer of smooth tissue. It covers the ends of the thighbone and shinbone. It also lines the back side of the kneecap. Healthy cartilage absorbs stress and allows the knee to bend easily.
- + Muscles power the knee and leg for movement.
- + Tendons attach the muscles to the bones.
- + Ligaments are bands of tissue that connect bones and brace the joint.



Knee Replacement Surgery

During total knee replacement surgery, your damaged knee joint is replaced with an artificial joint (called a prosthesis). This surgery almost always reduces joint pain and improves your quality of life. The components are made of specialized metal and advanced plastics.



Anesthesia for your surgery

Your surgery will require some form of anesthesia (pain control). You may be offered a choice or combination of general, spinal or regional anesthesia. Options will be discussed in detail when you come for your PEAC appointment with the Nurse Practitioner.

Regional anesthesia or nerve block

Regional anesthesia is often used along with spinal or general anesthesia. The regional anesthesia numbs a very specific part of your leg, thus relieving pain sensation in that area for a period of time.

General anesthesia

General anesthesia is a controlled unconsciousness, blocking pain over the entire body.

Spinal anesthesia

Local anesthetic is injected into the spinal fluid in the lower part of your back. It blocks pain traveling from the body to the brain. To receive the anesthetic your skin is numbed at the injection site. You will also receive medication through your intravenous catheter that will keep you asleep throughout the surgery.

Local anesthetic

Your surgeon may use a medicine in the tissue surrounding the replaced joint before closing the incision. This medicine works slowly in the area to provide some numbing of the pain. It can last two to three days.

No matter which type of anesthesia is chosen, our goal is to keep you safe and as comfortable as possible.

For the duration of the anesthetic, a doctor of anesthesia, or a CRNA (certified registered nurse anesthetist) under the direction of an anesthesia doctor, will be by your side.

When the procedure is over you will be taken to the recovery room. When you have safely recovered from the anesthesia, you will be transferred to your hospital room when a bed is available.



Q&A

Some frequently asked questions

What is total joint replacement?

Total joint replacement involves a special implant to re-cap the damaged bone ends. This creates a new, smooth surface and a joint that can move with little or no pain.

What are the major risks?

Infection and blood clots are two serious problems. Your surgeon will give you antibiotics and blood thinners to help prevent them. Surgeons also take steps during the surgery to reduce the risk of infection. You can help prevent blood clots by getting up and walking on the day of surgery.

What happens during the surgery?

The hospital sets aside two to three hours for each surgery. Some of this time will be used by the operating room (OR) staff to prepare for surgery. You may have spinal anesthesia (which numbs your body) or general anesthesia (which makes you unconscious). The choice is between you, your surgeon, and the anesthesiologists. You will be able to speak to the anesthesiologists prior to surgery about this.

What happens after surgery and when can I have visitors?

After surgery, your surgeon will call your chosen contact person to update them on the surgery. You will be monitored in the Post-Anesthesia Care Unit (PACU) until you can be safely transferred to the next level of care for rehabilitation, where then you can receive visitors.

Will the surgery be painful?

You will have some pain after the surgery, but our goal is for you to have tolerable pain. At Middlesex we use a multimodal approach that will help with your pain management. We will use specialized anesthesia called nerve block medicine, cold therapy, leg elevation and movement to manage the pain. We use several different medicines together, in order to use less opioids for your pain. This helps avoid the side effects of opioids, such as grogginess, constipation, nausea and vomiting.

Can I bring my cell phone, computer, tablet or e-books to the hospital?

Yes, you can bring these, and use the hospital's free Wi-Fi. The hospital is not responsible for your belongings. Please remember to bring a charger for your personal electronic devices.

What clothes will I wear in the hospital?

You will get dressed the day of surgery. Bring comfortable, loose-fitting clothes. Shoes should have a good sole and a strap or back to support your foot. Anything you bring with you the day of surgery should be left in your car and brought to your room after surgery.

When will I get out of bed after surgery?

The goal is to get you out of bed and walking the day of surgery with the help of a staff member or therapist.

Can I get out of bed by myself or with a friend or family member?

No. It is very important that you get help from staff if you need to get out of bed. You are at risk of falling from your surgery and medicines.

How do I get home from the hospital?

Please have a family member or friend give you a ride home. Be sure the car does not have seats that are too high or too low.

Where will I go after leaving the hospital?

Plan to return home after your hospital stay. Patients who return home recover more quickly.

Will I need help at home?

Yes, for the first few days, you should have someone stay with you. If you live alone, please have a family member or friend who can stay for a few days.

What equipment will I need when I leave the hospital?

Most patients will need a walker with wheels in the front and pegs in the back. Your insurance may not cover this. You can buy one at a pharmacy, Walmart, Amazon, or sometimes find one at your local senior center. Family or friends may have equipment you can borrow. Other optional equipment is shower chair, commode or raised toilet seat.

Will I need physical therapy when I get home?

All patients will leave the hospital with a physical therapy plan. You will be informed of this plan and following steps prior to discharge.

Is there anything I can do before surgery to help my recovery?

Exercising and eating healthy before surgery will help. See the *Get Ready* section of this Patient Guide to learn more about healthy eating.

Will my new joint set off security sensors when traveling?

Your new joint is made of a metal alloy. It may or may not set off the alarms in security devices. Security staff may need to use a wand to check you. No cards are provided, and TSA does not accept cards.

How long will my new joint last?

How long a new joint lasts is different in every patient. An implant is a medical device that may wear down and lead to mechanical failure. There is no guarantee that your implant will last for a specified number of years.

I have already had a knee replacement. Should I expect this joint replacement to be the same as the first?

Each surgery is different and will be affected by the severity of your arthritis, the condition of your worn joint and the surrounding muscle damage. Other factors are your overall health and your weight. Your recovery time and pain management will depend on your body's response to the surgery.

What would cause my surgery to be delayed?

Some conditions that may delay your surgery include a positive Covid-19 test, a BMI higher than 40, or a A1C higher than 8. Providers at your pre-procedure clearance will provide you with resources if your scores are higher than the recommended range.



PROTEIN AND FIBER

Before and after orthopedic surgery

Protein

Protein should be included in every meal and snack as part of a well-balanced diet. Be aware that your protein needs will significantly increase during your healing period. After surgery you should increase your serving size of protein.

There are many ways to increase protein in your diet. Here are some ideas:

- + Replace one of your beverage choices with an 8 oz glass of nonfat or 1% milk.
- + Make sure your meat choice at meals is the size of a deck of cards or larger.
- + Eat more eggs and egg whites.
- + Snack on cheese, nuts, nut butter, hummus, Greek yogurt, and cottage cheese.
- + Add protein powder, nuts, nut butter, non-fat dry milk, or Greek yogurt into shakes, smoothies, or oatmeal.
- + Plain nonfat Greek yogurt is also an excellent substitution for sour cream.

	Choose Often	Choose Less Often
High Protein Foods	<p>Unsalted beans, lentils, or peas</p> <p>Soy products (e.g. tofu, tempeh, soy nuts, or edamame)</p> <p>Eggs or egg substitutes</p> <p>Unsalted nuts and seeds (e.g. peanuts, walnuts, almonds, pistachios, or sunflower seeds)</p> <p>Unsalted nut and seed butters (e.g. peanut, almond, and sunflower seed butter)</p> <p>Skinless poultry (e.g. chicken or turkey)</p> <p>Moderate amounts of lean red meat (e.g. trimmed cuts of beef loin, pork loin, or lamb)</p> <p>Plant-based meat alternatives (e.g. soy and black bean burgers)</p> <p>Fish (preferably omega-3-rich fish such as tuna and salmon) and shellfish (e.g. shrimp, lobster, clams, and scallops)</p>	<p>Limit red meat to a few times per month.</p> <p>Marbled or fatty red meats (e.g. ribs, ribeye, and brisket)</p> <p>Processed meats (e.g. bacon, sausage, ham, cured meats)</p> <p>Deli meats such as pastrami, bologna, or salami</p> <p>Poultry with skin (chicken and turkey)</p> <p>Fried meats, poultry, or fish</p> <p>Fried eggs</p> <p>Salted beans, peas, lentils, nuts, seeds, or nut/seed butters</p> <p>High-mercury fish (e.g. King mackerel, shark, and tilefish)</p>
Dairy and Dairy Alternatives	<p>Low-fat or fat-free milk, yogurt, Greek yogurt, cottage cheese, and cheese</p> <p>Calcium fortified soy milk or yogurt, soy milk, or pea milk</p>	<p>Whole milk, cheese, and yogurt</p> <p>Ice cream</p> <p>Fried cheese</p>

Fiber

Getting enough fiber in your diet is important for many reasons. Prior to your surgery, it may be recommended you manage your weight. Fiber can support this goal by helping you to feel fuller longer. After surgery, fiber can be helpful to prevent constipation that can occur because of pain medications and inactivity. Be aware that when fiber is increased, you will also need to make sure you drink at least 8 cups of calorie-free fluids – preferably water – each day.

Here are a few ways to make sure you are meeting fiber recommendations:

- + Choose foods that have 3 or more grams of fiber per serving.
- + Include whole grains in at least 2 meals per day. Whole grains include brown rice, whole wheat pasta, whole wheat bread, oatmeal, quinoa, barley, buckwheat, etc.
 - Get adventurous and try lesser known whole grains such as farro, kamut, sorghum, teff, and wheat berries.
 - When choosing bread, look for “whole wheat” listed as the first ingredient.
- + Eat 3-5 servings (1 serving = 1 cup or piece) of fruit and vegetables per day. Choose fresh or frozen whole fruit and vegetables instead of juices or canned.
- + When baking, replace half of the all-purpose flour in a recipe with whole wheat flour.
- + Add beans (e.g. kidney beans, garbanzo beans, navy beans) and peas to casseroles, soups and chillies, or salads.



Eating well before surgery

Eating well before and after surgery helps your body recover faster. A few weeks before your surgery, begin increasing your protein intake to help build up your strength and your body tissues.

What's on your plate?



Before you eat, think about what and how much food goes on your plate or in your cup or bowl. Over the day, include foods from all food groups: vegetables, fruits, whole grains, low-fat dairy products, and lean protein foods.



Make half your plate fruits and vegetables.



Make at least half your grains whole.



Switch to skim or 1% milk.



Vary your protein food choices.

INFORMATION FOR DIABETIC PATIENTS:

Healthy eating for blood sugar control

My Plate Planner

My Plate Planner Methods of Use

- Fill 1/2 of your plate with vegetables such as broccoli, carrots, cauliflower, and salad.
- Fill 1/4 of your plate with lean meat, chicken or fish; this about 3 ounces.
- Fill 1/4 of your plate with a starchy choice such as 1/2 cup mashed potatoes.
- Add 1 serving of fruit.
- Choose 1 serving of milk.
- Add margarine or oil for preparation or addition at the table.

Add other portions as needed to round out your meal plan.

For breakfast, use half the plate.

For lunch and dinner, use the entire plate.

Balanced eating is very important when you have diabetes. Eating the right types and right amounts of foods can help control your blood sugar levels and achieve a weight that is healthy for you.

To improve blood sugar control

- + Drink calorie-free beverages. Read the label to make sure that there are fewer than 20 calories per serving or five grams of carbs.
- + You may want to eat smaller meals throughout the day. Eat three meals a day or about every four to five hours that you are awake. Include a small snack before bed or when there is greater than five hours between meals.
- + Eat around the same times each day so that your insulin or diabetes pills match up with your food, especially the carbs.
- + Eat the right amount of food. Use a 9" plate to help control your portions. Fill 1/2 of the plate with vegetables (carrots, broccoli, green beans or salad). Fill 1/4 of the plate with lean meat, chicken or fish. (Size of a deck or cards.) Fill 1/4 of the plate with a grain or starchy vegetable choice (potato, rice, beans, pasta), about the size of a tennis ball. Complete the meal with a cup of skim/low-fat milk or sugar-free low-fat yogurt and/or a small piece of fresh fruit.
- + Foods from the grain/starchy family, vegetable, fruit, and dairy (because they contain carbs) have the greatest impact on your blood sugar.
- + Choose healthy fats in small amounts. Use tub margarine and canola or olive oil. Avoid fried foods and cheese or cream sauces.

INFORMATION FOR DIABETIC PATIENTS: Blood glucose management before surgery

Tuning up your diabetes before surgery

A 60-minute refresher class

Day and Evening
Appointments Available

To register, call 860-358-5420

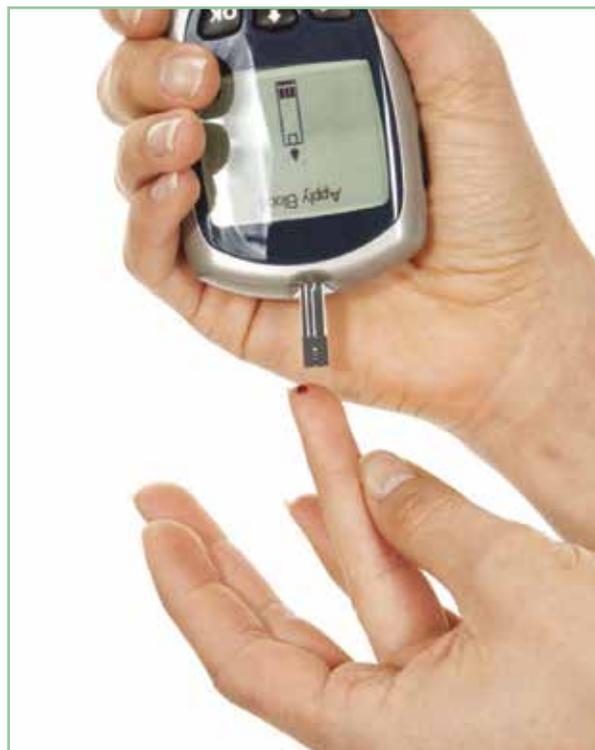
Center for Chronic Care
Management
Diabetes Care Program

28 Crescent Street
Middletown, CT 06457

The better you control your diabetes, the better your chances of an excellent surgical outcome. Keeping your blood glucose within the range that your doctor recommends is key. Studies show that people with well-controlled blood glucose have fewer problems during and after surgery.

Unfortunately, staying in control is not always easy. The Middlesex Health Diabetes Care Program offers strategies to better control your blood glucose. Certified Diabetes Educators provide education on healthy eating, lifestyle changes and the role of diabetes medications.

So, to avoid problems, feel better, and get well faster, take steps to control your blood glucose.



Getting started

- + Physician referral required (our staff will contact your provider for referral).
- + Insurance will be verified by our staff.
- + Individualized appointments.
- + Teaching by Certified Diabetes Educators.

“To Dos” Prior To Your Surgery

What to bring to the hospital

Stop smoking!

It is essential to stop smoking before surgery, and the Middlesex Health Center for Chronic Care Management offers a Comprehensive Smoking Cessation Program. Smoking can cause complications after surgery such as delayed healing and lung problems.

The program offers

- + Voluntary, short-term counseling.
- + Group and individual counseling.
- + Motivational support to help you stay on track to quit smoking.

Program topics include

- + Why quit?
- + Where to find support and how best to use it.
- + How to identify and manage triggers.
- + How to manage withdrawal symptoms and cravings.
- + How to manage stress in a healthy manner.
- + How to stay positive and focused on quitting.

Sessions are covered by most insurance companies, with affordable rates for those who are self-insured or uninsured.

For information and to make an appointment, call 860-358-5420.

Stop drinking alcohol!

Alcohol consumption can have adverse effects on your health and can lead to serious complications. If you consume alcohol please discuss with your surgeon prior to surgery. Alcohol consumption can lead to serious complications both during and after the procedure.



For us

- + List of medicines, including herbal and over-the-counter (list name, dose, and when you take them).
- + Insurance card and ID card.
- + Any co-payment required by your insurance.
- + A copy of your advance directives or living will.

For you

- + Phone numbers of family and friends.
- + Your Patient Guide.
- + Personal hygiene items (toothbrush, toothpaste, deodorant).
- + Cell phone, tablet, chargers and cords.
- + Comfortable clothes (shirts, shorts, socks and shoes).

Your equipment

- + Eyeglasses or contact lenses with case.
- + Hearing aid, case, extra batteries.
- + CPAP or BiPAP machine, mask and tubing.
- + Dentures and adhesive.

What to leave at home

- + Money, wallet, pocketbook.
- + Jewelry. No jewelry can be worn during surgery.
- + Cigarettes and matches. We are a smoke-free facility.
- + Medicines, unless your doctor tells you to bring them.
- + Makeup must be removed before surgery. Only nail polish can be left on.

You Will Need a Coach

Choose a family member or friend who can help you after surgery and act as a coach. Your coach should come with you to total joint pre-op class, and be a second set of ears after surgery to hear your discharge instructions. They should be someone who will support and encourage you and help with meals. If you live alone, it would help you to have someone who can stay with you for the first few days.

- C** - Committed
- O** - Overseer
- A** - Advocate
- C** - Champion
- H** - Hero



Ice Packs

For ice packs, we recommend the following options:

- + Purchase 2-3 ice packs (large packs are needed)
- + Purchase 4-5 large bags of frozen peas OR
- + Follow the recipe for making a homemade ice pack (it is cheap/easy to make and is slushy to conform over the operated site)

HOMEMADE ICE PACKS

INGREDIENTS

- 2 large Ziplock Freezer bags
- 2 cups water
- 1 cup rubbing alcohol (**90%**)

DIRECTIONS

- + Pour liquid contents in double bagged Ziplock Freezer bag.
- + Mix gently.
- + Lay flat in freezer for at least 36 hours prior to use.

Label "Ice Pack - Do NOT Eat"

The patient **PASSPORT** is designed to guide you through the surgical process

Completion of the patient passport is necessary to ensure a smooth total joint replacement experience.

A quick look at the steps involved in preparing you for your upcoming surgery:

_____ Body Mass Index (BMI): Height to weight ratio, 40 or less.

_____ Lab work drawn: If you are diabetic your A1c must be at or below 8.

_____ Dental Clearance: Recent dental visit and no need for dental procedures.

No dental work including cleaning within two weeks of surgery date.

_____ EKG.

_____ PEAC: Pre-procedure visit with Nurse Practitioner to clear you for your procedure.

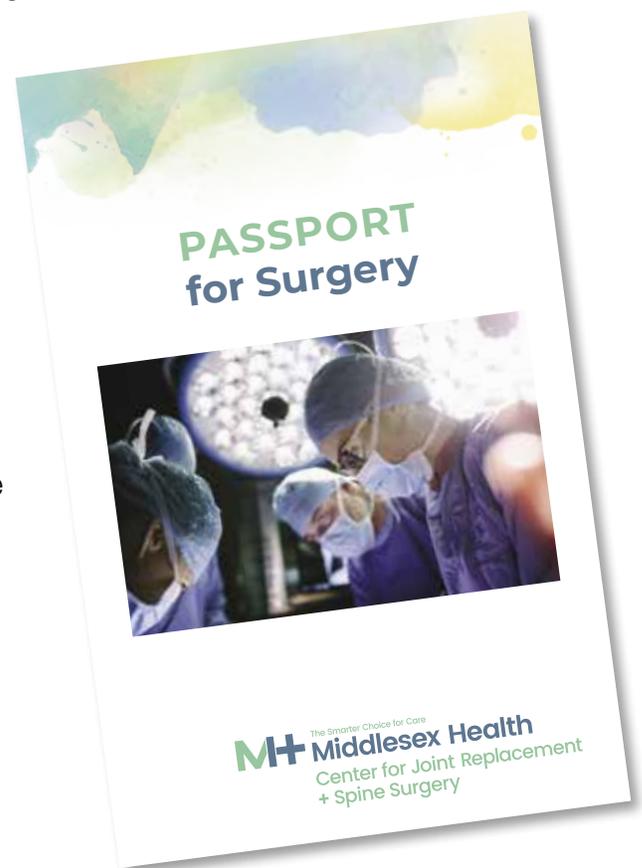
_____ Attend pre-op class.

_____ Consult, or specialty appointment if needed.

_____ Ride home.

_____ Choose your coach.

_____ Obtain a walker.



Exercises, goals and activity guidelines before surgery

Many patients with arthritis favor the painful leg. As a result, the muscles can become up to 30% weaker. By starting your exercise program before surgery, you will learn what you will need to do after surgery. You can begin working to improve your strength and flexibility. Knowing and doing exercises ahead of time can make them easier to do after surgery.

Exercising before surgery

It is important to be as flexible and strong as possible before having a total joint replacement.

Always talk to your doctor before starting a before surgery exercise plan. Your physician may instruct you to start doing these now and continue until surgery. You should be able to do them in 15-20 minutes and it is usually recommended that you do all of them twice a day. This is a minimum amount of “training” prior to your surgery.



Remember that you need to strengthen your entire body, not just your leg. It is very important that you strengthen your arms by doing chair push-ups because after surgery you will be relying on your arms to support you when walking with the walker or crutches, and in performing other daily activities. You should also exercise your heart and lungs by performing light endurance activities – for example, walking for 10-15 minutes each day.

Do NOT do any exercise that is too painful for you to tolerate.

Instructions on how to do a few before surgery exercises are detailed on the next page.

Breathing exercises

To prevent problems such as pneumonia, it is important to understand and practice breathing exercises.

Deep breathing

An exercise you can do before you come in for surgery to get your lungs in shape is called “smelling the roses and blowing out the candles.” To do this exercise, follow these steps:

- + Pretend you have a bouquet of roses in front of you.
- + Breathe in through your nose as deep as you can, fully expanding your chest.
- + Then pretend you are blowing out your birthday candles with fish lips. As you breathe out, do it slowly and completely.
- + Take a break and then repeat the exercise 10 times.

Coughing

- + Take a slow, deep breath. Breathe in through your nose and concentrate on filling your lungs completely, fully expanding your chest.
- + Breathe out through your mouth and concentrate on your chest emptying completely.
- + Repeat with another breath in the same way.
- + Take another breath, but hold your breath and then cough hard. When you cough, focus on emptying your lungs.
- + Repeat all steps two more times.

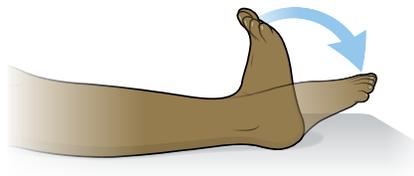
Exercises to do before joint replacement

Ankle pumps, quad sets, gluteal sets

The following exercises can be done in bed. Some help improve blood flow. Others help build strength. Your physical therapist may give you special instructions. Otherwise, repeat each exercise ten times, and do them at least three times per day.

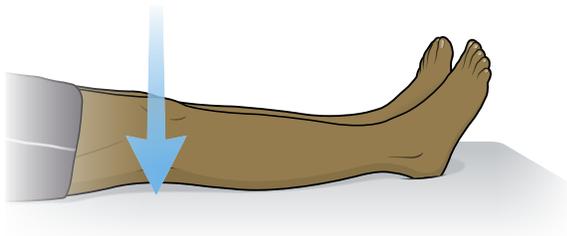
Ankle pumps

- + Point, then flex, both feet.
- + Doing this 10-30 times each hour, or 1-2 minutes, helps prevent blood clots in your legs.



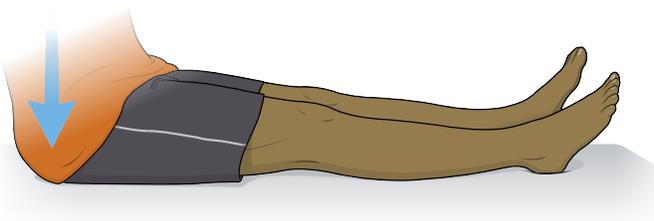
Quadriceps sets

- + Lie in bed with your legs straight. Tighten the muscle at the front of the thigh as you press the back of your knee down toward the bed.
- + Hold for a few seconds. Then relax the leg.
- + Do 3 sets of 10, 3 times a day.



Gluteal sets

- + Squeeze your buttocks together tightly.
- + Your hips will rise slightly off the bed.
- + Hold for five seconds, then relax the leg.
- + Do 3 sets of 10, 3 times a day.

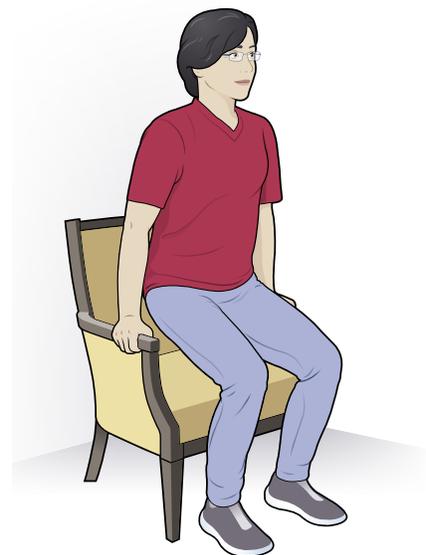


Seated press-ups

These exercises build upper body strength. This can help you when you need to use a walker or crutches to get around after surgery. Follow your doctor's instructions. Stop any exercise that causes sharp or increased joint pain, dizziness, shortness of breath or chest pain, or if your shoulders hurt.

Seated press-ups

- + Sit in a sturdy chair with armrests.
- + With palms flat on the armrests, press down to lift your buttocks from the chair. Hold for 3-5 seconds.
- + Bend your elbows to slowly ease back down.
- + Do 3 sets of 10, 3 times a day.

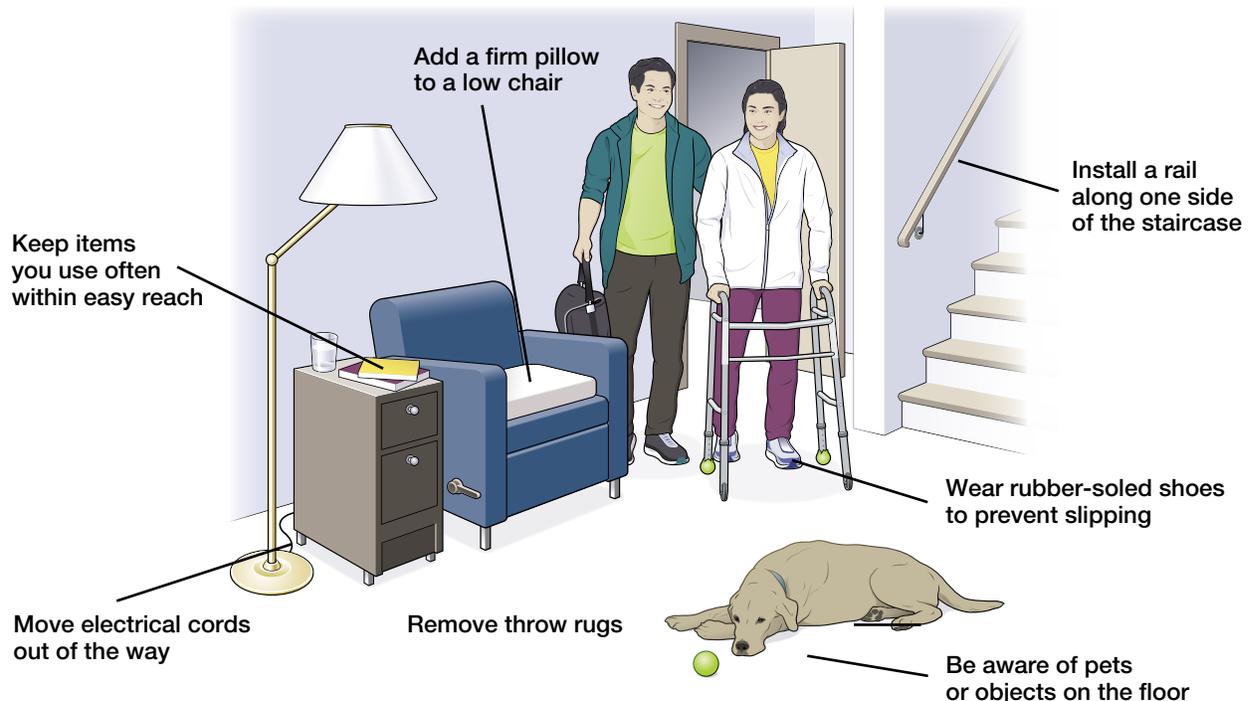
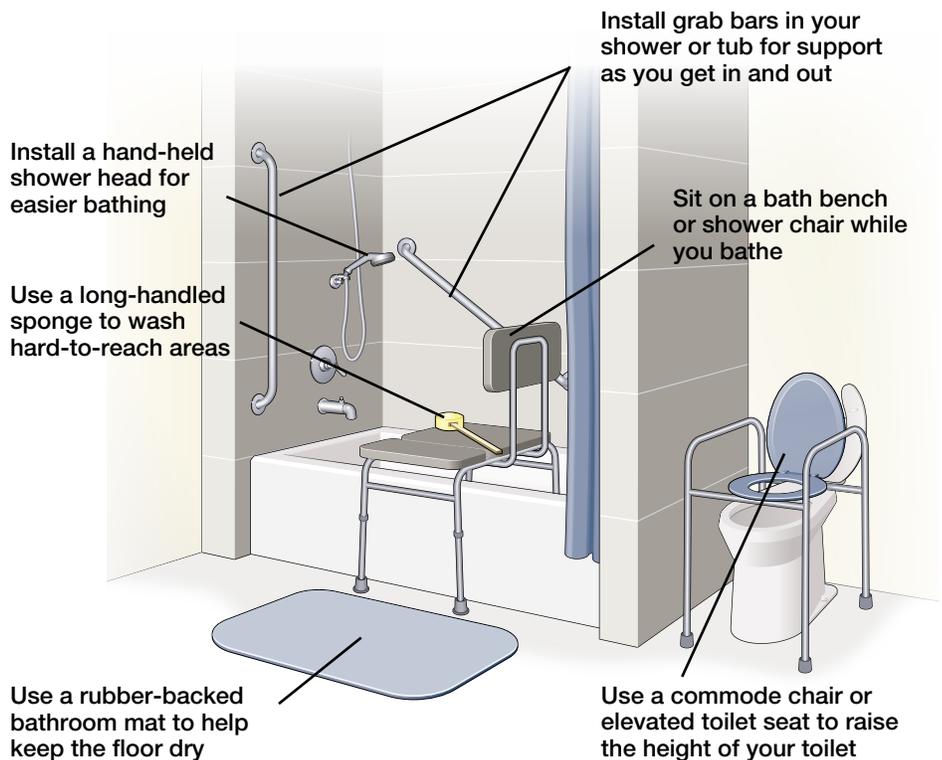


Awareness within your home environment is important to your safety

Becoming more aware of hazards in your home can help make your recovery safer.

You might want to have furniture rearranged so it's easier to get around. In the bathroom, aids like a shower hose, bath bench, or shower chair and a raised toilet seat can help you stay safe.

Don't forget to watch out for hazards like wet floors or uneven surfaces.



Prepare your home for your return

It is important to have your home ready for your return. Use this checklist as your guide. Having the house cleaned, laundry and yard work done, and bed sheets changed will help prepare for your return.

Prevent falls

- + Remove loose rugs from the floor.
- + Use a firm cushion to raise the seat in a low chair.
- + Remove objects in hallways or other tight spaces to make room for your walker.
- + Arrange furniture so you can easily get around the room.
- + Tuck away long phone and lamp cords.
- + Make sure that all stairways have railings.



Your bathroom

- + If possible, have rails in your tub or shower professionally installed.
- + Buy a shower bench or chair, a hand-held shower nozzle and non-skid tub mats.
- + A raised toilet seat can be easier to use.

Getting around

- + If your bedroom is upstairs, you may want to sleep downstairs for the first few days back at home.
- + An electric recliner may be more comfortable than a bed. It can make it easier to elevate your legs and get up.
- + Attach a basket or small bag to your walker to carry lightweight items such as tissues, pens, phone, plates and cup.
- + Put items you use often within reach, between waist and shoulder level, to avoid bending.
- + Carry or move hot liquids in containers with covers.

Use help

- + Have someone to help you the first few days you are back at home.
- + Have someone shop, run errands and drive you to appointments.
- + Stock up on easy-to-prepare healthy foods, and freeze some meals ahead of time.
- + Find someone to care for your pets, so that you will not trip on them.

Pre-operative showering instructions

Shower every day for three days before your surgery, and shower on the morning of your surgery. For each shower, follow these steps:

Step 1: Shower using your normal shampoo and an anti-bacterial soap and then rinse off.

Step 2: Wash with Chlorhexidine using your hand or a clean sponge in a circular motion.

- + Avoid using Chlorhexidine on your head, hair, face and direct privates.
- + Start at your neck and work your way down to your feet.
- + Spend extra time gently washing the site of your planned surgery.
- + Let the Chlorhexidine stay on your skin for one to two minutes.
- + Rinse your body.

Why do I need to use Chlorhexidine?

- + It will kill the germs on your skin and help prevent an infection after surgery.

What if I have trouble reaching any part of my body?

- + Use a long-handled sponge or ask someone to help you.

What if I am allergic to Chlorhexidine?

- + Do not use Chlorhexidine.
- + Just use an antibacterial bar soap for the three days before and morning of surgery.

Shaving

- + Do not shave your legs for the week before your surgery.

What to expect

Night before surgery

- + Follow instructions given to you regarding eating and drinking.

Morning of surgery

- + Take medicines as directed by the pre-procedure Navigator with a sip of water.
- + Hospital front doors do not open until 5:30 a.m.
- + Go to the Information Desk or ground floor Surgery Department using the elevators to the right of lobby.

Day of surgery

- + We will prepare you for surgery. An intravenous line will be started which will be used for giving you fluids, antibiotics, pain medications and anesthesia. Your operative site will also be scrubbed.
- + You will meet your surgical team, including your surgeon, nursing staff and anesthesiologist, who will review your plan for surgery.
- + You will then be taken to the operating room.

After surgery

- + After your surgery you will go to the recovery area. Your family will not be allowed to visit you during this time.
- + You will go to the next level of care for rehabilitation. Your family or friends may then visit you.

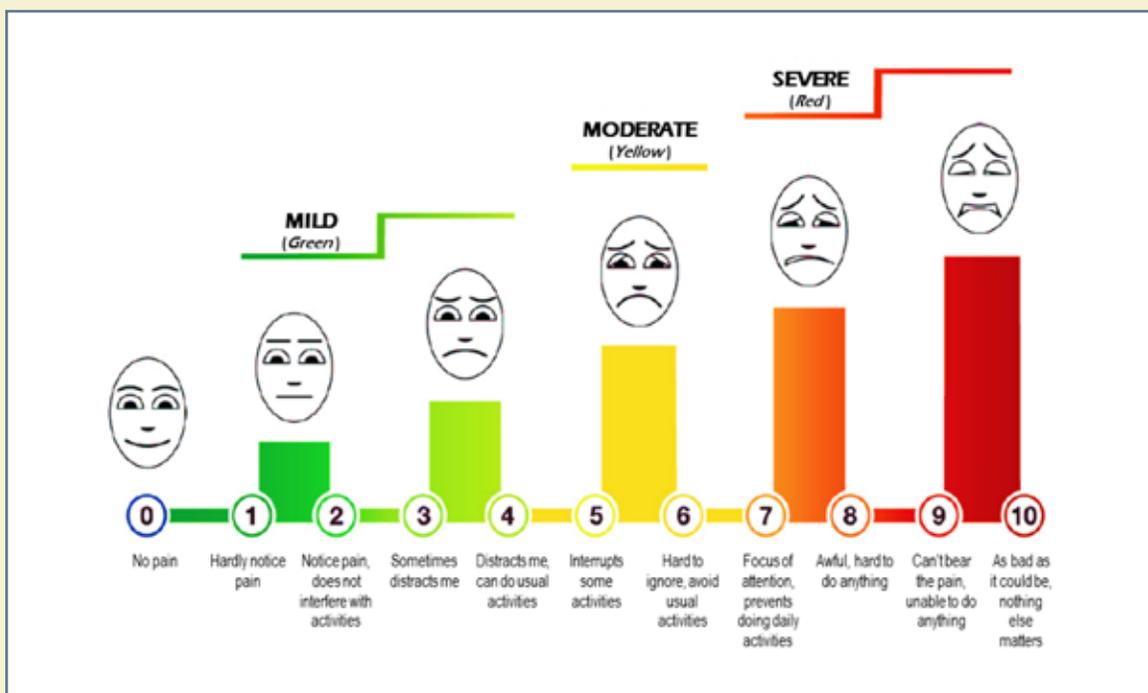
- + You will work with physical and occupational therapy.
- + The dressing on your incision will remain on during your stay in the hospital. You will be given instructions on how to care for your incision when you are leaving the hospital.
- + To prevent blood clots, you will have mechanical foot pumps or leg wraps placed on you after surgery. These should be worn while in bed or sitting in the chair.
- + To help prevent pneumonia, you should brush your teeth three times a day, beginning when you get to your room after surgery. And use your incentive spirometer while in the hospital and at home.
- + You will be given medicine to help move your bowels.
- + The team will work to make you as comfortable as possible.
- + Your progress will determine if you will be leaving the same day or staying overnight.
- + We want to help to manage your pain. Let the nurses know which medications are working for you and which are not. It is important to not let your pain get out of control.

Understanding pain

During your stay in the hospital your team will address your pain using a combination of medicines for pain management.

The pain scale

Using a number to rate your pain can help the team understand the severity of your pain and help them make the best decision to manage it.



Your role in pain management

Using a pain scale to describe your pain will help the team understand your pain level. If “0” means you have no pain and “10” means you are in the worst pain possible, how would you rate your pain? With good communication about your pain, the team can make adjustments to make you more comfortable. Try to relax. When you are relaxed, medication works better.

Moving after knee replacement surgery

Patients who get up and walk the day of their surgery:

- + Leave the hospital sooner.
- + Have fewer complications, such as pneumonia and blood clots.
- + Return to daily routines faster.

Our team members will help you:

- + Get out of bed the day of your surgery.
- + Walk a little more each day.
- + Climb stairs when you are ready.
- + Be sure you are comfortable dressing, washing and using the toilet by yourself before you leave the hospital.

Now that you know the benefits, let's start walking!



Going home

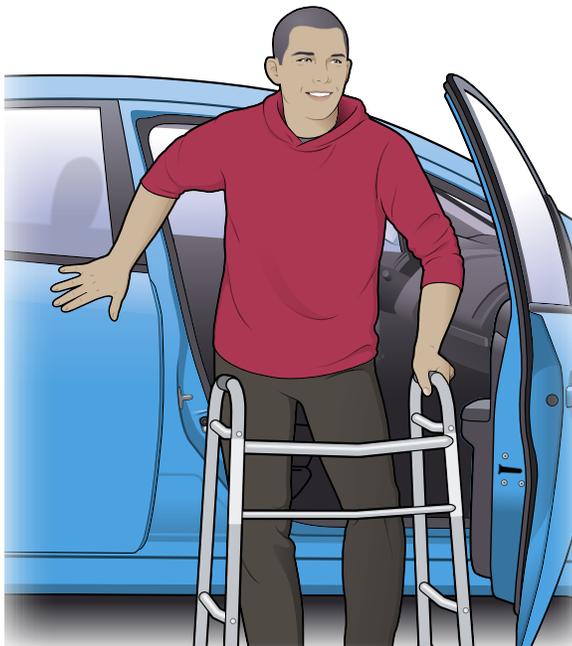
Once you have met the discharge milestones.

Be ready to leave the hospital the day after surgery. Our goal is for you to recover in the comfort of your own home as soon as possible. Please arrange for someone to be available to pick you up. If preferred, have a coach present during your physical therapy session and to listen to your discharge instructions.



Getting into the car with a walker

- + Back up to the car seat.
- + Hold on to the side of the car or the dashboard for support – do not hang on the door as it may move.
- + Lower yourself slowly onto the seat edge. Watch your head.
- + Slide back to the center of the seat.
- + Lift your legs one at a time into the car.
- + Have seat pushed all the way back to give you more leg room.



ROAD TO RECOVERY

Now it's time to care for your new joint

Important information to keep in mind after you get home.

Medical follow-up

- + You will leave the hospital with a follow up appointment with your surgeon or physician assistant.
- + You and your surgeon will plan a customized rehabilitation based on your needs.
- + Write down all of your questions and bring them when you see your surgeon.

Information about your new knee

- + Following knee replacement, most patients develop swelling in the operated leg. The amount varies from patient to patient. Applying ice frequently for 20 minutes at a time is very helpful. Raising the ankle of your operated leg will help to reduce swelling.
- + 80-90% of recovery occurs in the first two to three months.
- + Total recovery takes at least one year.
- + You may have periods of feeling down after surgery. This is common – eating healthy, staying active and getting adequate sleep should help.
- + You may not have a good appetite for a few weeks after surgery. Eat more frequent, smaller and healthy meals.
- + After surgery your body needs to recover. Expect to feel more tired for several weeks after joint replacement. Rest often throughout the day for the first few weeks.

Dental visits

- + You cannot have any dental work, including cleanings, for two weeks before surgery.
- + Your surgeon will want you to wait for a period of time after surgery before going to the dentist – even for a cleaning. Check with your surgeon to find out when you can return to the dentist.
- + Tell your dentist that you have had your knee replaced because you may need to take an antibiotic before having any procedures, including cleaning.
- + Ask about the antibiotic prescription during your follow-up visit with your surgeon.
- + Your surgeon will let you know how long you will need to follow this safety measure.



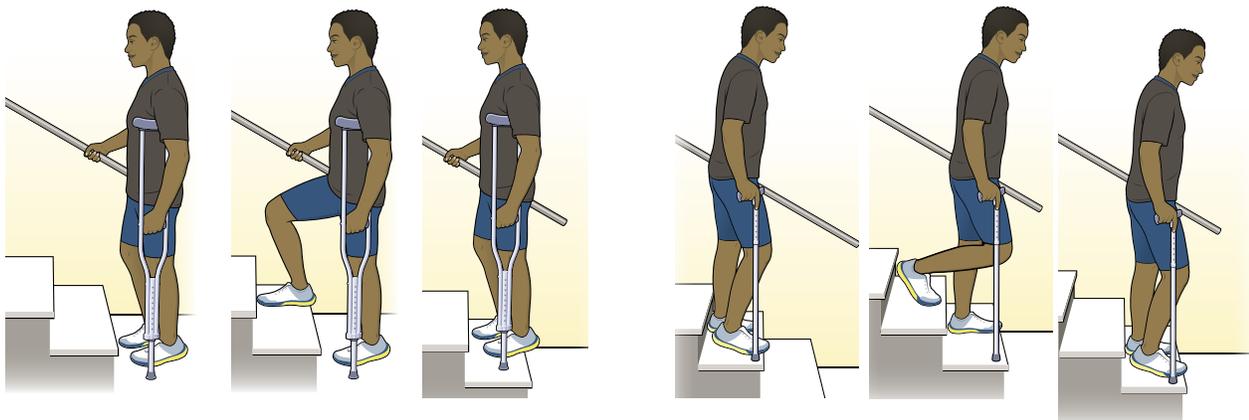
Precautions for total knee replacement

For the safety of your new knee follow these precautions, especially during the first four weeks after surgery:

- + Do not step until your walker is flat on the floor.
- + Do not sit on low chairs. A chair with arms will allow you to get up and down easier.
- + Do not twist your knee for six to eight weeks.

- + Change positions frequently to avoid knee stiffness.
- + Stay active. When your therapist says you are ready, you should take daily walks, increasing your distance as your strength improves.
- + Step on operated leg first when walking.

Stair climbing FOR TOTAL KNEE REPLACEMENT



► Please note you may be able to substitute a cane for a crutch if your therapist approves.

Stairs

- + Go up the stairs with the non-operated leg first, think “up with the good”.
- + Go down the stairs with the operated leg first, think “down with the bad”.

Going down stairs

- + Hold the handrail with one hand.
- + Put both crutches in your other hand.
- + Move crutches down one step.
- + Bend your non-operated knee, moving your operated leg down.
- + Support your weight evenly between handrail and your crutches.
- + Slowly bring your non-operated leg down.

Going up stairs

- + Hold the handrail with one hand.
- + Put both crutches in your other hand.
- + Support your weight evenly between handrail and your crutches.
- + Put some weight on the crutches.
- + Step up with your non-operated leg first.
- + Get your balance.
- + Straighten your non-operated knee and lift your body weight.
- + Bring your crutches and operated leg up.
- + Don't hop.

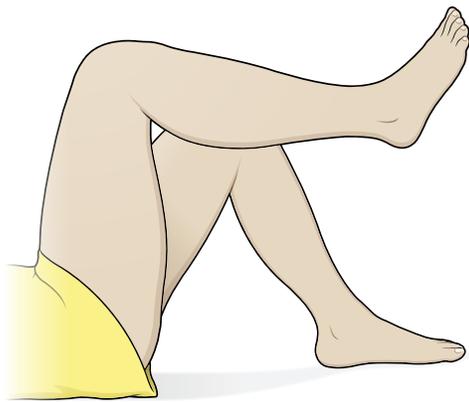
Sex after joint replacement:

BECOMING INTIMATE AGAIN

After a total joint replacement, you may have many questions: How soon can I be active? How will my sex life be affected? When can I have sex again? The good news is it's likely that you can return to sex sooner than many other activities. This sheet can help you learn to support and protect your new joint when you're ready to have sex again. So talk and plan with your partner.

The first step

A total joint replacement is major surgery. Healing takes time. At first, you may be afraid that any activity, including sex, could cause pain or injury. Your partner may also be afraid of hurting you. These fears are normal. Having concerns about the way your body looks is also normal. Discuss such issues with your partner. Share this sheet. Read it together or separately. It's up to you two. What matters most is that you talk with each other about your needs—emotional as well as sexual ones.



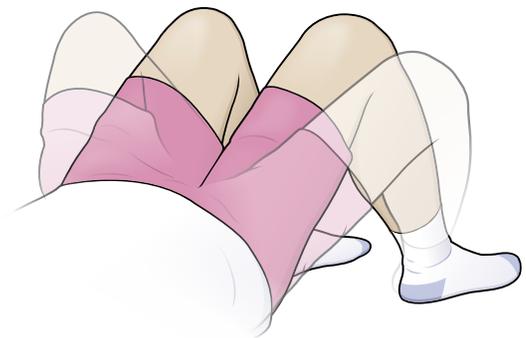
Keep your knee aligned with or below your hip. Do not bring your knee toward your chest.

As you heal

Before surgery, knee pain may have greatly limited your movement. But now that the problem joint has been replaced, your pain should be lessened. And with time, your range of motion should improve. As you heal, you may feel ready to be more active again. You may also find a renewed desire for sex. When you and your partner are ready, learn which positions are best for you.

After knee replacement

There are no safety restrictions after a knee replacement. You can probably have sex as soon as your pain allows. Comfort and range of motion may be your biggest issues.



The knee on the affected side should face straight forward or turn out a bit. Do not rotate your knee inward.

Sex after joint replacement:

POSITIONS FOR KNEES

You've had joint replacement surgery and may be wondering what positions are safe for sex. The positions on this sheet should be safe after a knee replacement. Try to avoid putting too much pressure on your new joint. Also, take the same care getting out of a position as you did getting into it.

Setting the scene

Having sex can be a little easier if you plan ahead. Here are a few tips:

- + Take a mild pain medication about 20-30 minutes before sex. This can help prevent minor aches. Avoid taking medication so strong that it masks warning pain.
- + Have pillows and rolled towels nearby. They can be used for body support.
- + Relax. Do a few easy stretches within a safe range of motion.

Face-to-face

- + This position works after a knee replacement. Being on the bottom is safe for a man or a woman with a new joint.
- + The partner on the bottom keeps his or her legs apart and turned out slightly. Use pillows to support the legs on the outside. Depending on



Face-to-face works after either a hip or knee replacement.

comfort, the person on the bottom can recline propped up on pillows or lie flat.

Sitting in a chair

- + This position works after a knee replacement. It is a safe position for a man or a woman with a new joint.
- + The man sits on a straight chair. His feet are supported or are flat on the floor. The woman sits on the man's lap.



The sitting-in-a-chair position is safe for a man or a woman with a hip or knee replacement.

Woman lying and man kneeling

- + This position works for a woman with a new knee joint.
- + The woman lies on the bed on her back, buttocks near the edge of the bed. Both feet should be supported or flat on the floor.
- + The man kneels in front of the woman, on pillows placed on the floor. His hands are placed on either side of her body.



Woman-lying-and-man-standing works for a woman with a new hip or knee joint.

Side-lying position

- + This position works for a man with a replaced knee joint. He should lie on his side, with the new joint on the bottom.
- + Use pillows for support.



The side-lying position works for a man with a new knee joint, or a woman with either a new hip or knee.

Check your incision each day

If you have drainage for 5 days in a row, call your surgeon!



If you have:

- Increasing drainage
- Any odor from the incision
- Sudden increase in pain
- Redness that spreads
- New swelling not helped by ice and leg elevation
- Temperature of 100.9° or more, twice in a row

Here's what to do:

- Call your surgeon and say you need an appointment within 24 hours
- Explain why you are calling—tell them about the fever, pain, drainage, and/or swelling
- On a weekend or holiday, do not wait. You can reach a surgeon by calling the office.



If you have more than one of these symptoms:

- More drainage than the day before
- Moderate pain at rest
- More swelling or redness
- Temperature at or over 100.9°

Here's what to do:

- Call your surgeon to report these changes
- Ice and elevate leg as much as possible
- Record temperature three times each day



If you have:

- No new drainage
- A little less pain each day

Here's what to do:

- Do daily wound self-checks
- Take your temperature each morning
- Record your temperature on the tracking log



Middlesex Health Care at Home

Call: 860-358-5600

What you need, all under one roof-yours. All provided by Middlesex Health to ensure complete, coordinated care.

Services

- In-home health care services
- Home health aides
- Hospice
- Specialized nursing care
- Rehabilitation therapy
- Palliative care services

Our Service Area

- Branford (certain areas)
- Chester
- Clinton
- Colchester
- Cromwell
- Deep River
- Durham
- East Haddam
- East Hampton
- East Lyme (certain areas)
- Essex/Ivoryton
- Glastonbury (certain areas)
- Guilford
- Haddam
- Hebron (certain areas)
- Killingworth
- Lyme
- Madison
- Marlborough
- Meriden (certain areas)
- Middlefield
- Middletown
- Old Saybrook
- Portland
- Rocky Hill
- Westbrook



MIDDLESEX HEALTH

Laboratory Services Locations



MiddlesexHealth.org/lab

860-358-6160

YOU CAN HAVE A BLOOD TEST AT ANY OF THE FOLLOWING LOCATIONS:

Outpatient Center

534 Saybrook Road

Middletown, CT 06457

Monday – Friday: 7:00 a.m. - 5:00 p.m.

Saturday: 7:00 a.m. - 12:00 noon

Marlborough Medical Center

12 Jones Hollow Road

Marlborough, CT 06447

Monday – Friday: 7:00 a.m. - 5:00 p.m.

Saturday: 7:00 a.m. - 12:00 noon

Shoreline Medical Center

250 Flat Rock Place

Westbrook, CT 06498

Monday – Friday: 7:00 a.m. - 5:00 p.m.

Saturday: 7:00 a.m. - 12:00 noon



How Therapy Can Help

Middlesex Health Physical Rehabilitation Center

Our Staff

Physical, Occupational
and Speech Therapists
Certified Hand Therapists
Certified LSVT Therapists
Certified McKenzie
Therapists
Orthopedic Specialists
Athletic Trainers
Certified Lymphedema
Therapists

Our Locations

Middlesex Hospital
28 Crescent Street
Middletown, CT

Outpatient Center
534 Saybrook Road
Middletown, CT

512 Saybrook Road
Middletown, CT

252 Westbrook Road
Essex, CT

6 Independence Drive
Suite 1
Marlborough, CT

1347 Boston Post Road
Madison, CT

13 High Street
Suite 2
Portland, CT

Rehabilitation Services

- + Aquatic therapy
- + Back and neck pain –
McKenzie Method
- + Balance and
vestibular disorders
- + BIG and LOUD Parkinson's
disease rehabilitation
- + Biomechanical
foot evaluations
- + Orthopedic and Sports
Medicine – injuries and
post-surgical
- + Cancer rehabilitation
- + Custom splinting
- + Hand therapy
- + Stroke and neurological
disorders – team approach
- + Lymphedema –
edema control
- + Neurological rehabilitation
- + Pelvic health and
incontinence therapy
- + Pulmonary rehabilitation
- + Speech therapy and
swallowing assessments
- + Worksite evaluations
and ergonomics

Early morning and evening appointments
available Monday – Friday

Call **860-358-2700**

MiddlesexHealth.org/Rehab



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Health
Physical
Rehabilitation

Are you the only one taking your medicine?

Medication abuse is an ***epidemic***.



MOST TEENS who report abuse of prescription pain meds within the past year are getting them from family, friends or acquaintances.*



AN ESTIMATED 71,000 CHILDREN 18 and younger are seen in U.S. emergency departments each year because of unintentional medication poisonings.**



ABOUT 40% OF POISON EXPOSURES reported to U.S. poison centers involve exposures to medications by children under age 6.***

It's not just you and your family that you need to worry about...

- Young children, teenager or babysitters
- Workers or delivery people
- House hunters invited in to see your home
- Neighbors or friends in your home
- And anyone visiting you!

You can prevent medication abuse by taking steps to monitor, safeguard and properly dispose of your medicine.

Protect yourself, your family and your community

Very often, medication misuse and abuse begins at home. Are you and your family at risk?

There are four steps you can take today to protect you and the ones you love from accidental overdose or illegal use.

1

MONITOR YOUR MEDICATIONS

Take note of how many pills are in your medicine cabinet. Keep track of your refills and follow directions on how to properly take your medicine. Remember, only you should take your prescription pain medication.

2

SAFEGUARD YOUR MEDICATIONS

Secure your prescriptions the same way you would other valuable in your home, like cash and jewelry. Don't leave medicine lying around for anyone to take – keep it out of reach and out of sight.

3

PROPERLY DISPOSE OF YOUR MEDICATIONS

Safely and promptly dispose of expired and unused prescriptions. This is a critical step in helping to protect your family. Use at-home drug neutralization systems or return unused meds to an official take-back location.

4

TALK TO YOUR FAMILY

Share what you've learned about how to monitor, safeguard and dispose of your medications with your family, friends and neighbors. Be sure that everyone plays their part in helping to keep your community safe.

Learn more at: www.alliancebpm.org/participate

* Results from the 2013 National Survey on Drug Use and Health

** Medication Safety Program. Programs Focus and Activities. Centers for Disease Control and Prevention

*** Protect The Ones You Love: Child Injuries are Preventable. A National Action Plan for Child Injury Prevention: Reducing Poisoning Injuries in Children. Centers for Disease Control and Prevention.

Used/Donated Equipment

CHARLIE'S CLOSET

310 State Street #200, Guilford, CT
Phone: 203-453-8359
Hours: 9 a.m. - 12 p.m., Monday - Friday
by appointment only

DURHAM HEALTHMART PHARMACY

321 Main Street, Durham, CT
Call first: 860-349-3478
Walkers: \$1 donation

EAST HAMPTON SENIOR CENTER

105 Main Street, East Hampton, CT
Phone: 860-267-4426
Hours: 8:30 a.m. - 4 p.m. Monday - Thursday,
9-4 p.m. Friday
Email contact: easthamptonct.org
Walkers: Loan/no cost

CLINTON CONGREGATIONAL CHURCH

55 Church Road, Clinton, CT
Phone: 860-669-5735, option #2
Hours: 9 a.m - 4 p.m. Tuesday - Friday
Leave message, they will call back to arrange time
for pickup
Walkers: Loan/no cost

ESTATE TREASURES

134 Main Street, Middletown. CT
Phone: 860-344-0005
Hours: 8 - 5 p.m. Monday - Friday,
9 - 4 p.m. Saturday/Sunday
Email contact: estatetreasuresandservices@att.net
Walkers: \$25

MARLBOROUGH SENIOR CENTER

17 School Drive, Marlborough, CT
Phone 860-295-6209
Website: www.marlboroughct.net
Hours: 8 a.m. - 12 p.m. Monday, Tuesday, Thursday
Walkers: Loan/no cost

WHAT IS MYCHART?

MyChart is Middlesex Health's easy-to-use online patient portal powered by our Epic medical record system. MyChart creates a single medical and financial record for you, so that you can access your medical information, interact with your providers' offices, and pay your bill all in one place.



WITH MYCHART YOU CAN:

- Access your medical records
- Access your list of medications and request or renew prescriptions
- Access your immunization (vaccine) records
- Access most lab and test results
- Access appointment information, as well as request appointments with some doctors
- Access *Fast Pass*, which notifies you if a more convenient appointment time becomes available
- Communicate with your providers' offices via confidential electronic messages
- Use *eCheck-in* to review and update your patient information and complete pre-appointment paperwork online prior to a provider visit
- View your billing and insurance information, as well as pay your bill online
- Help family members by linking their MyChart account to yours (with permission, of course)

MiddlesexHealth.org/MyChart

MyChart

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Health

GET CONNECTED TO YOUR HEALTH

@ MiddlesexHealth.org/MyChart

THERE ARE TWO WAYS TO CREATE A MYCHART ACCOUNT:

1. Create an account with Middlesex Health staff at the provider office front desk or in an exam room during your appointment.
2. Create an account online. Online self-signup requires an activation code. You can get this code from your After Visit Summary after a Middlesex Health appointment, or via email after you request a code online at MiddlesexHealth.org/MyChart.

HOW TO CREATE AN ACCOUNT ONLINE:

- Visit **MiddlesexHealth.org/MyChart**.
- From the MyChart login page, click SIGN UP NOW in the New User section.
- Enter your MyChart activation code and personal verification items and click NEXT. You either received your code on your After Visit Summary after a Middlesex Health appointment or via email after you requested a code online.
- On the next page, follow instructions to create your MyChart ID, with username, password and security question. This will be your MyChart login.

- Enter your email address and select YES to receive notification messages when there is new information available in your MyChart account.
- Click SIGN IN to view your medical records.

IS THERE AN APP FOR THAT?

You can also create and access your MyChart account on your smartphone using the MyChart Mobile app. This app is free and available for Apple and Android devices.

NEED ASSISTANCE?

For more information, step-by-step guides and Help Line hours, please visit **MiddlesexHealth.org/MyChartHelp**, or call the **MyChart Help Line at 860-358-4111**.



MiddlesexHealth.org/MyChart

MyChart

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1 Main Entrance (28 Crescent Street)	4 90 South Main Street
2 Emergency Entrance	5 The Crescent Center
3 80 South Main Street (PEAC)	6 Family Advocacy
	P Parking



28 Crescent Street
Middletown, CT 06457

MiddlesexHealth.org

M+ Middlesex Health
Center for Joint Replacement
+ Spine Surgery