



A Customized Knee Replacement

Provides the Perfect Fit

A photograph of two women riding bicycles in a forest. The woman in the foreground is wearing a blue helmet, a light-colored jacket, and is smiling broadly while riding. The woman in the background is also wearing a blue helmet and a light blue jacket, and is also smiling. The background is filled with green trees and sunlight filtering through the leaves.

You Can Return to Your Active Lifestyle in No Time

You're struggling with a debilitating knee problem like arthritis. You can't climb the stairs without discomfort or pain. Your knee stiffens up during car rides, and you can't sit for long periods in a theater or stadium. You ache during or after exercise. Worst of all, you're losing sleep because you can't get comfortable.

These are just some of the problems and challenges that could make you an ideal candidate for a total knee replacement. It's a decision you and your doctor at Kayal Orthopaedic Center should make after thorough discussions, evaluations and testing.





Your Knee Is in Expert Hands

**If total knee replacement is the answer,
breathe easier.**

You're exactly where you need to be and relief is on the way. Dr. Robert A. Kayal is one of today's foremost innovators in total knee replacement surgery as well as the first surgeon to offer customized replacements to patients in Northern New Jersey.

Using cutting-edge technologies that speed rehabilitation and optimize outcomes, Dr. Kayal is taking post-surgical success to an entirely new level. He combines MRI imaging and three-dimensional printing to produce a knee replacement that fits perfectly to your unique anatomy.





Kayal Orthopaedic Sets the Standard

Kayal Orthopaedic Center is one of just a handful of practices across the United States successfully using 3D blueprints for custom knees through Zimmer® Patient Specific Instrumentation (PSI) computer-assisted technology.

HERE'S HOW IT WORKS:

An MRI scan of your knee, hip and ankle is performed before surgery. Using proprietary computer software, a 3-D model is created that matches the orientation, size and dimensions of your knee. The information is also used to create customized surgical tools that are unique to your anatomy. Using these specially designed tools, your surgeon removes just the right amount of bone to fit the knee replacement implant into place, saving as much healthy bone as possible.

"All knees are not created equal," explains Dr. Kayal. "This is the future of replacement surgery—a custom-fit joint. It's quite amazing. Our technique allows us to pre-design the ideal knee so that each person gets a perfect fit, just like a tailor-made suit."



Why Tradition Isn't Good Enough

Traditional knee replacements are performed using an antiquated and more invasive approach. Because every knee is different, that isn't always the best option.

Trying to fit improperly sized implants can result in new knees that are either too large or too small, which can hinder movement and cause pain. In addition, your surgeon may need to remove more bone to make the replacement fit.

THERE ARE MANY ADVANTAGES TO CUSTOM KNEE REPLACEMENT. TYPICALLY:

1. Your surgery is quicker and more efficient.
2. Your recovery is speedier and more successful.
3. You will experience a perfect fit and enjoy greater stability.
4. Your joint will last longer than a traditional knee replacement.

As Dr. Kayal explains, the process also allows the surgeon to correct any misalignment. If you have arthritis in your knee, this customization can restore its pre-arthritic condition. When your knee is aligned properly, your movement is freer, which reduces wear and tear on the joint so that it lasts longer.

Dr. Kayal performs custom knee replacements at Chilton Medical Center and HackensackUMC at Pascack Valley, where he also serves as Chief of the Division of Orthopaedic Surgery. This means your surgery can be performed where it is convenient for you.





Here's What to Expect When You're Facing Surgery

It's only natural to feel anxious when facing a medical procedure, but the surgeons and staff at Kayal Orthopaedic Center are here for you every step of the way. Don't be afraid to ask questions. We believe our patients deserve straightforward answers.





Here are some things you can expect in the weeks and days before surgery:

YOUR PREOPERATIVE APPOINTMENT

We will discuss your upcoming surgery and provide you with any prescriptions to fill for medication you need after your procedure.

We will answer all of your questions so that you feel comfortable and confident with your decision to proceed.

We'll schedule your follow-up appointments.

THE DAY BEFORE SURGERY

One of our nurses will call to tell you what time to check in. If your surgery is on Monday, you could hear from us on Friday.

You should make arrangements to have someone drive you to the hospital or surgery center.

Don't eat after midnight the night before your surgery.

Make sure to follow your surgical team's instructions on what medications to take and what medications to avoid the night before and morning of your surgery.

Follow your surgery team's instructions about showering and bathing. You may be instructed to shower with Hibiclens, a disinfectant, the night before your surgery.

Don't use it on your face, head or private areas.

THE MORNING OF YOUR SURGERY

You'll be instructed to arrive as early as two hours before your procedure.

Don't wear jewelry or bring any valuables with you.

If you were advised to take medications, make sure to use only a sip of water to take them. Don't eat or drink anything else.

Bring your photo ID, health insurance card, prescription card, a list of all of the medications you take (prescription and nonprescription) and a copy of your advanced directive or living will.

Don't wear makeup or use any perfume, lotion or powder.



DURING & AFTER YOUR SURGERY

After you check in at the front desk, you'll go to a private area to change into a hospital gown and slippers.

Your surgery should take one to two hours, depending on the type of procedure.

You'll be taken to the post-anesthesia care unit to recover while the anesthesia wears off.

Following your procedure, you'll receive detailed instructions about your immediate post-operative care.

If you're staying overnight, you'll complete your recovery in a private or semi-private room. You will probably spend two or three days in the hospital, where you will begin physical therapy.

If you are an outpatient, make sure you have someone to drive you home and stay with you for at least 24 hours.

When you return home, you should consider avoiding the stairs for a week or more. If your bedroom is upstairs, you should consider sleeping on the first floor during the first week of recovery.

FOLLOW-UP CARE

You might be transferred to an inpatient rehabilitation center for a few days. The hospital case manager can help arrange the transfer if necessary.

You probably will be prescribed a blood thinner to decrease the risk of a blood clot. Some blood thinners are self-administered with a small needle.

After knee replacement surgery, a continuous passive motion machine or ice machine may be used to improve your knee's range of motion and minimize swelling and pain.

At your post-operative visit, your dressing will be changed and your sutures will be removed.

You'll have the chance to see X-rays of your new knee replacement and your surgeon will describe what happened during the procedure.

You'll be encouraged to ask questions and discuss your progress. X-rays will be taken during follow-up visits at two weeks, six weeks, three months, six months, one year and annually after that.

Don't be alarmed if you feel numbness on each side of your incision. This is normal because tiny sensory nerves are severed during the surgery.

Avoid kneeling on your new knee and make sure to follow other lifelong total knee precautions.

Every patient is different. However, knee replacement rehabilitation usually begins the day of or the day after your surgery and lasts about three months.





YOUR PHYSICAL THERAPY WILL FOCUS ON:

Learning to use your crutches or walker

Using your continuous passive motion machine

Controlling pain and swelling

Learning to walk properly

Increasing your range of motion

Navigating stairs

Strengthening your muscles

Your physical therapist also may concentrate on teaching you how to safely get in and out of bed or a vehicle and transition from sitting to standing.

Recovery times vary, but it's important to listen to your surgeon's instructions and to avoid doing too much too quickly. When you follow your recovery plan, you'll be back to your full and active lifestyle before you know it.





**Schedule an
Appointment With**

Kayal Orthopaedic Center

To find out if a customized knee replacement is right for you, call 844.281.1783 to schedule a same-day appointment.

Kayal Orthopaedic Center specializes in injury prevention, pain management, minimally invasive surgery and innovative therapies. It is your one-stop destination for total knee replacement surgery and other orthopaedic care. Our elite team of highly trained and experienced physicians are in three convenient locations in the Garden State: 266 Harristown Road, Suite 107, Glen Rock, NJ; 784 Franklin Avenue, Suite 250, Franklin Lakes, NJ; and 250 Old Hook Road, Suite 401, on the campus of HackensackUMC at Pascack Valley, Westwood, NJ.

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