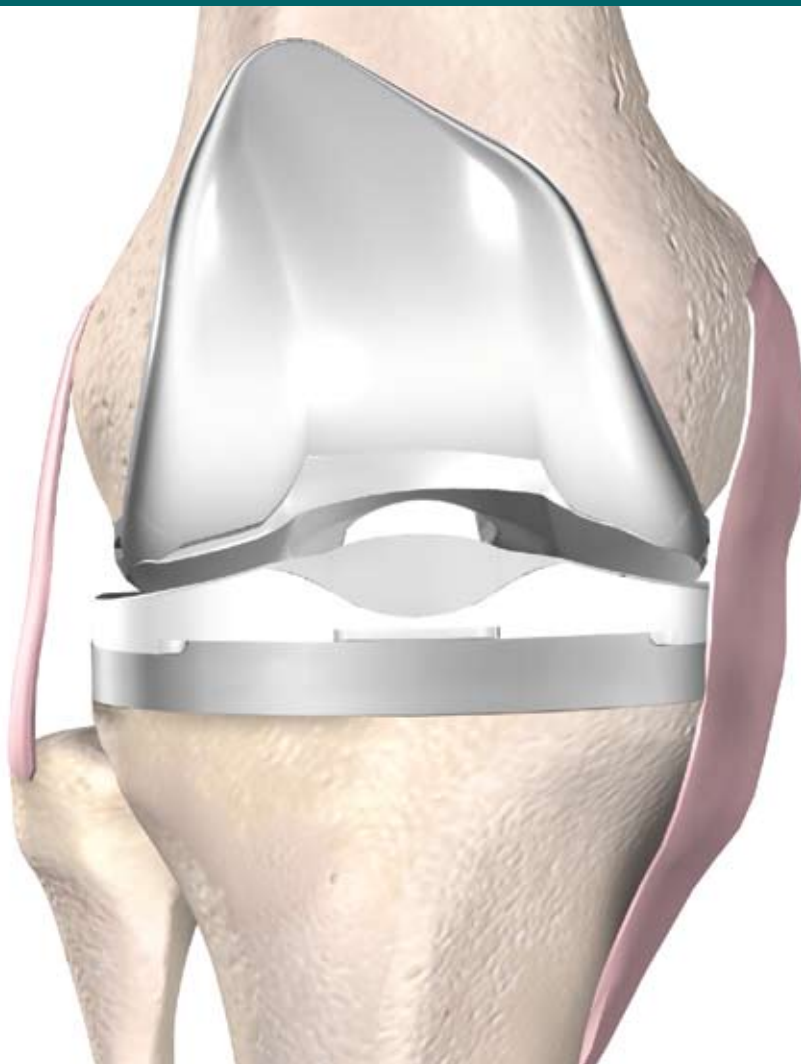


# Knee Replacement Surgery

## Understanding the Risks





# Understanding the Risks of Your Knee Replacement Surgery

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## **Introduction**

This booklet is designed to help your doctor talk to you about the most common risks you face when getting a new knee.

With a documented 90% success rate, the great majority of total knee surgeries are complication-free and result in significant pain relief and restoration of mobility<sup>1</sup>. Advances in technology and implant design are expected to contribute to longevity of the implants. However, as with any surgical procedure, there are defined, inherent risks of which you should be aware.

This booklet outlines the potential risks and complications of total joint replacement. It is not meant to replace any type of advice from your doctor.

Please read this booklet carefully and ask your doctor any questions you may have about what you read.

**We wish you the best of health!**

# Thrombo-Embolic Disease

## Blood Clots

### Why This May Happen

Veins are kinked (bent) when the new knee is placed in your body.

Decreased mobility.

Smokers, inactive and obese individuals, and also those with family history of blood clots are at higher risk.

### If It Happens To You

**Blood Clot in Your Leg:**

You may experience leg swelling, pain, and restlessness.

**Blood Clot in Your Lung:**

You may experience difficulty breathing.

Although it is rare, you may die from such a clot.

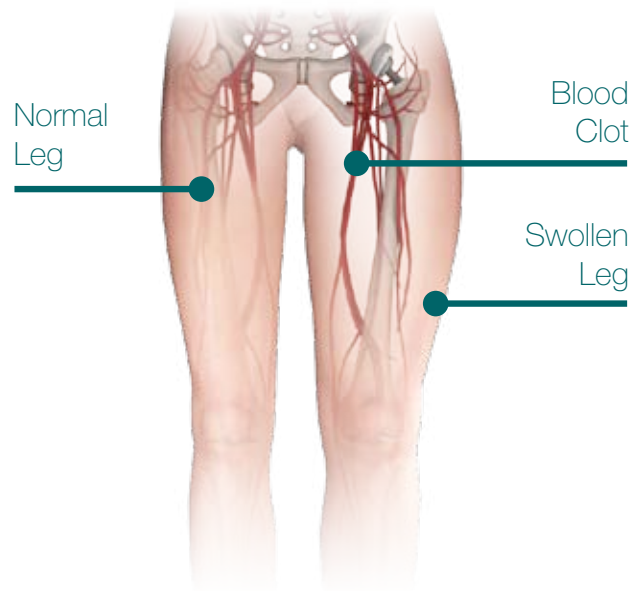
### Minimizing Your Risk

- Blood thinners
- Inflatable leg coverings
- Ankle pump exercises
- Maintain healthy weight
- Maintain an active lifestyle

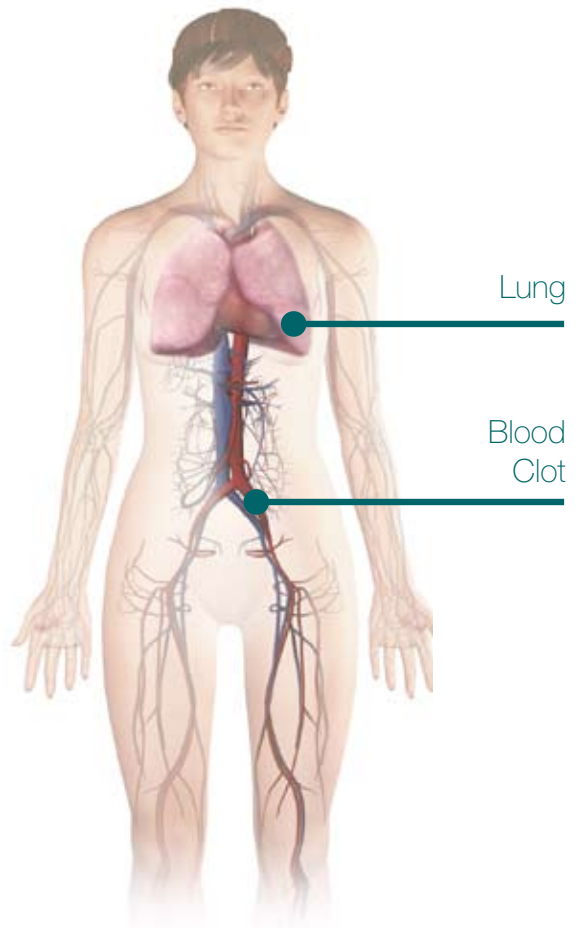
### Treatment

Immediate immobilization.

Emergency treatment and hospitalization may be necessary.



**A piece of clot in your leg may break off and enter your lung.**



# Stiff Knee

## Poor Range of Motion

### Why This May Happen

You may develop stiffness and poor range of motion if you don't follow a physical therapy program.

Although rare, it is more likely to happen to you if :

- You have poor range of motion before surgery
- You have had other knee surgeries
- You form dense scar tissue around your knee

### If It Happens To You

You may experience knee pain or have a limp.

### Minimizing Your Risk

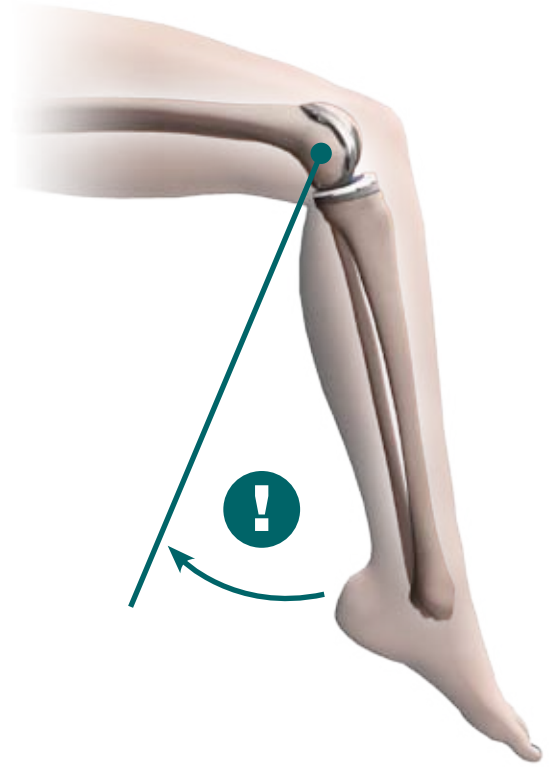
- Follow your doctor's and physical therapist's instructions post-operatively.

### Treatment

Physical therapy.

Manipulation under anesthesia.

Additional surgery may be necessary.



**Unable to bend knee**



**Unable to straighten knee**

# Neuropraxia

## Nerve Damage

### Why This May Happen

The nerve most often involved is the peroneal nerve. Nerves can stop working when they are stretched or stressed.

- It is often needed to stretch these nerves when a knee is placed in your body.
- Nerves can also be stretched by normal placement of instruments during surgery.

The chances of this happening is more likely if you have “knocked” knees.

### If It Happens To You

You may be unable to straighten your foot at the ankle.

You may be unable to feel the top of your foot.

### Treatment

Most nerve palsies resolve or improve over time.

In extreme cases, nerve damage may be able to be repaired by a neurovascular surgeon.

Peroneal Nerve



Peroneal Nerve Damage

# Infection

## Why This May Happen

Infection can occur during surgery or post-operatively.

- Germs may get into the knee joint and cause infection of the knee implant.
- Germs may get into the skin and cause a wound infection.

The chances of this happening is more likely if you have diabetes, rheumatoid arthritis or if you have frequent infections.

## If It Happens To You

**Implant Infection:**

You may have knee pain, chills, fever, and your implant may become loose.

**Wound Infection:**

Your wound may become red or painful. It may open and drain pus.

*Call your doctor if you experience any of these symptoms.*

## Minimizing Your Risk

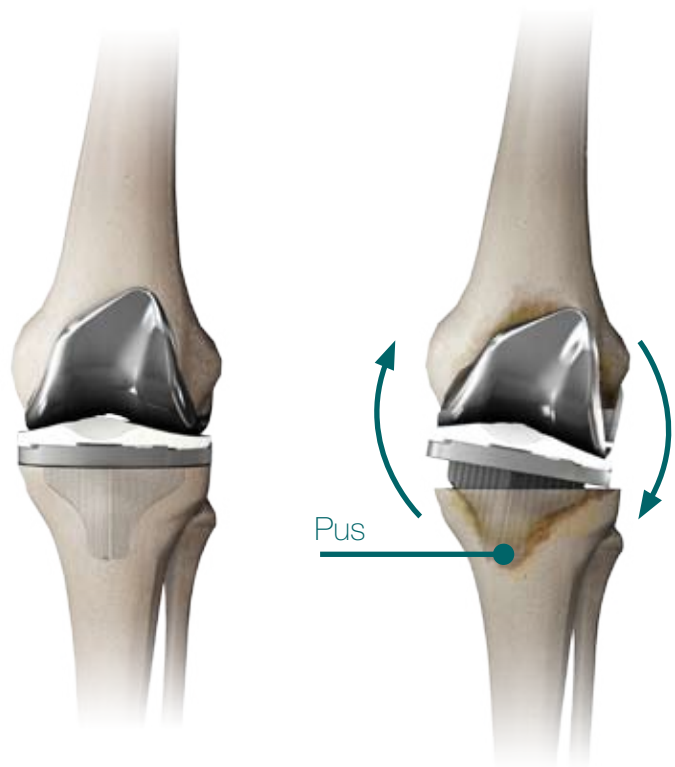
- During your surgery, antibiotics are used around the incision site.
- It is also recommended that you take preventative antibiotics after your operation for routine procedures such as dental work.

## Treatment

Antibiotics

Surgery may be necessary to clean the skin wound or knee joint.

For deeper infections, there may be a possibility of revision implant surgery.



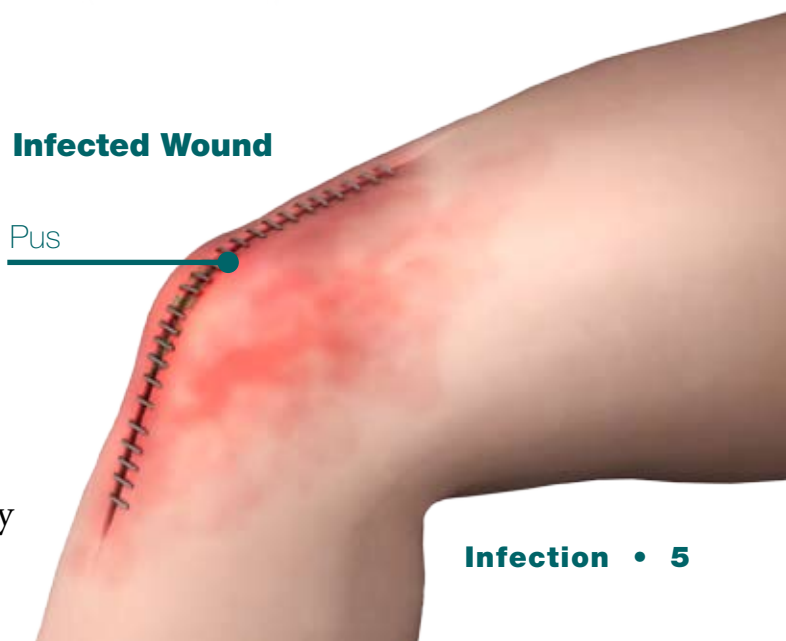
**Normal Implant**

**Loose Implant**

**Normal Wound Healing**



**Infected Wound**



# Knee Ligament & Tendon Tears

## Patella Tendon & Medial Collateral Ligament (MCL)

### Why This May Happen

Your ligaments or tendons may tear when they are moved out of the way to place the implant in your knee.

If you have had other knee surgeries or if you are very overweight, your risk may be higher.

### If It Happens To You

**Knee Cap Tendon:**

Your knee will be painful and you will be unable to straighten your knee.

**Medial Ligament:**

Your knee may become unstable and may buckle when you walk.

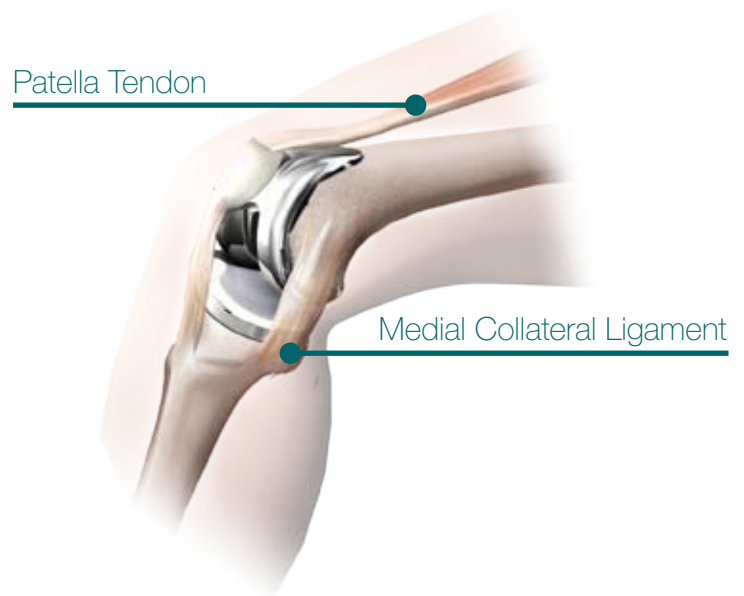
### Minimizing Your Risk

- Your doctor will take care during surgery to minimize damage to soft tissue.

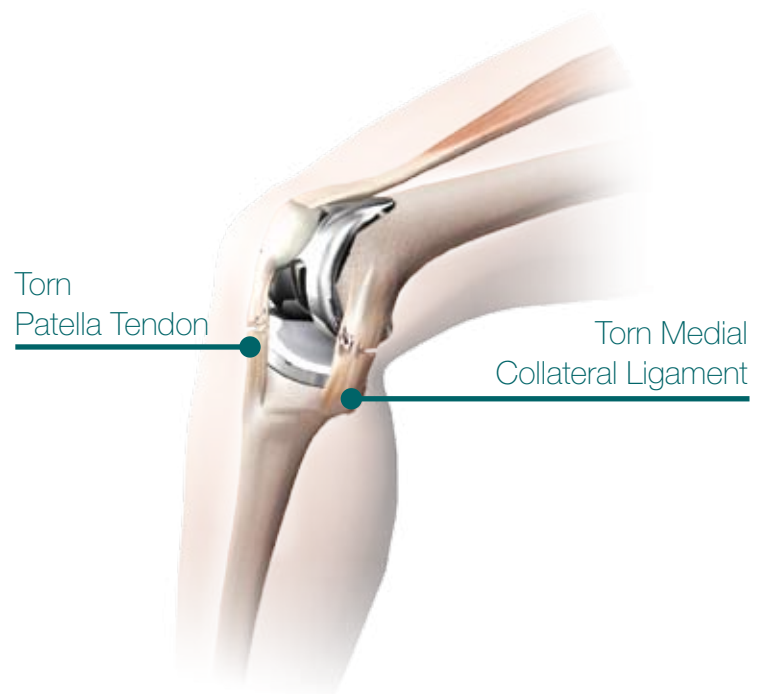
### Treatment

Surgery may be necessary to repair a torn ligament or tendon.

#### Normal Patella (Knee Cap) Tendon & Medial Collateral Ligament



#### Torn Patella (Knee Cap) Tendon & Medial Collateral Ligament



# Fracture

## Breaking a Bone During Surgery

### Why This May Happen

Some force is needed to place the implant. This may cause a break in the bone.

The chances of this happening may be higher if you have weak, soft bones.

Post-operative fractures can also occur.

### Minimizing Your Risk

Intra-operative fractures:

Your doctor will take care in implanting the device.

Post-operative fractures:

Use a cane, crutches or walker to prevent falling. Follow your doctor's post-operative instructions.

### Treatment

Many intra-operative fractures can be fixed during surgery.

You may need more surgery to treat a post-operative fracture.

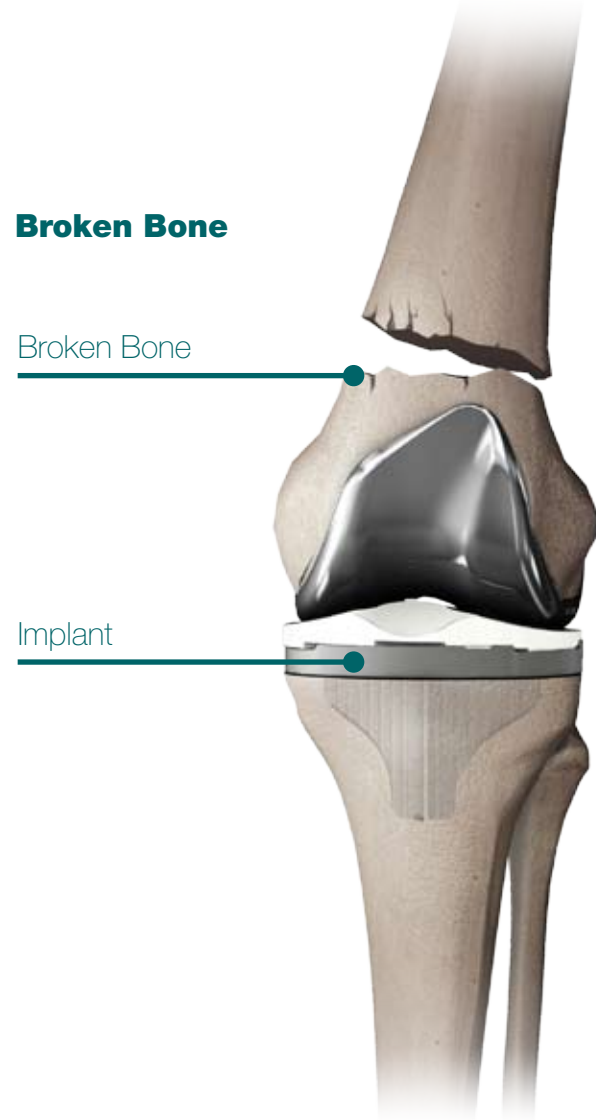
**Normal Bone**



**Broken Bone**

Broken Bone

Implant



# Other Potential Complications & Risks

## Implant-Related Complications

There are also potential complications specific to the knee implants. Although infrequent, these complications can occur and include:

### Wearing Out of the Implant

This depends on many factors including your age and activity level. Advancements in implant design have come a long way in recent years. Implants are extensively tested for strength and minimizing wear.

### Reaction of Body to Particles

Osteolysis is an inflammatory response to particle debris in the joint. Osteolysis, or weakening of the bone surrounding the implant, can occur when the implants wear down and your body reacts to the particles. This may lead to loosening of the implants.

### Metal Sensitivity

Metal sensitivity is extremely rare. Your doctor may test on your skin to determine if you have an allergy.

## Extending the Life of the Implant

The lifetime of a joint replacement is not infinite and varies with each individual. Each patient will experience a different post-operative activity level, depending on his or her own individual clinical factors. Your doctor will help counsel you about how to best maintain your activities in order to potentially prolong the lifetime of the device. Such strategies include not engaging in high-impact activities, such as running, as well as maintaining a healthy weight.

## Potential Risks with Any Surgery

Overall, the complication rate following joint replacement surgery is very low. But as with any major surgical procedure, patients who undergo total joint replacement are at risk for other complications, such as:

- Reaction to anesthesia
- Blood loss
- Pneumonia
- Heart attack
- Stroke

Other medical conditions could change due to the stress of the surgery and anesthesia. Your surgeon and your primary care physician would work together to control these things.



References:

1. American Academy of Orthopaedic Surgeons.

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The information presented is for educational purposes only. Stryker is not dispensing medical advice. Please speak to your doctor to decide if joint replacement surgery is right for you. Only your doctor can make the medical judgment which products and treatments are right for your own individual condition. As with any surgery, joint replacement carries certain risks. Your surgeon will explain all the possible complications of the surgery, as well as side effects. Additionally, the lifetime of a joint replacement is not infinite and varies with each individual. Also, each patient will experience a different post-operative activity level, depending on his or her own individual clinical factors. Your doctor will help counsel you about how to best maintain your activities in order to potentially prolong the lifetime of the device. Such strategies include not engaging in high-impact activities, such as running, as well as maintaining a healthy weight.

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