

RidgeStop™ for Patella Luxation



An owners guide...



Introduction

Patellar luxation is one of the most common causes of lameness in both large and small breed dogs and cats.

The reported incidence of medial patellar luxation in small breed dogs is 12 times higher compared with large breed dogs with females being overrepresented.

Most commonly affected breeds include:

Poodles, Pomeranians, Yorkshire Terriers, Chihuahuas, French Bulldogs, Lhasa Apsos, Cavalier King Charles Spaniels, Bichon Frises, Pugs, English Bulldogs, West Highland White Terriers, Jack Russell Terriers, and Shih-tzus.

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Does my pet need RidgeStop™ patellar stabilisation?

When patellar luxation is diagnosed as the cause of your pet's lameness (*limping or intermittently skipping on one or both rear limbs*) surgical stabilisation may be beneficial.

RidgeStop™ can be used as a “stand-alone” procedure for less severe cases of patellar luxation – Grade 2 or better. Alternatively, RidgeStop™ is employed as an adjunct procedure when re-alignment operations such as distal femoral ostectomy or tibial crest translocation have been performed.

The aim of the surgery is to make sure that the patella slides up and down within its groove, without slipping to one side or the other, causing discomfort and lameness. This surgery works by applying a special implant (a prosthetic ridge called RidgeStop™) using screws onto the side of the groove where the kneecap was dislocating, thereby creating a barrier which prevents this from occurring.



Patellar luxation severity grading

Grade
4

Patella luxated continually and cannot be manually replaced

Grade
3

Patella luxated continually, and can be manually replaced but will reluxate spontaneously when manual pressure is removed

Grade
2

Patella luxates with stifle flexion or on manual manipulation and remains luxated until stifle extension or manual replacement occurs

Grade
1

Patella can be manually luxated but returns to normal position when released

What does the operation involve?

The surgery involves opening the knee joint space, examining the joint, and fixing the implant (made of an ultra-high molecular weight polyethylene) to the bone using 2 or 3 screws.

RidgeStop™ is precision manufactured with each implant size having a corresponding drill guide to ensure ideal anatomic placement of the implant. The 'Ridge', when correctly positioned acts as a barrier to prevent the patella slipping. This procedure has been successfully carried out on both dogs and cats.

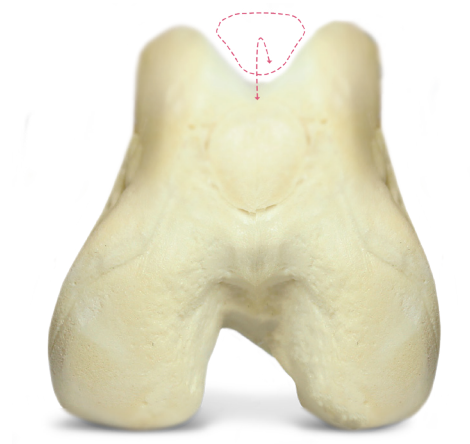
Available in five lengths, the RidgeStop™ implants cover most sizes of dogs (and some cats) for either a medial or lateral luxating patella. For medial patellar luxations, a RidgeStop™ implant is applied to the medial trochlear ridge and a medial surgical approach to the stifle (knee) joint is employed. Conversely, for lateral patellar luxations, a lateral approach is done.

The 'Ridge', when correctly positioned acts as a barrier to prevent the patella slipping

Unlike other procedures for this condition where the joint surface had to be cut, this is a much less traumatic procedure, as well as being more effective. However, depending on the severity of the condition, additional surgical measures may have had to be performed.

More severe cases (perhaps grade 3 or more) may require a patellar-quadiceps muscle mechanism realignment procedure. This could be involving sawing of the tibial and/or femoral bones, which help realign the kneecap.

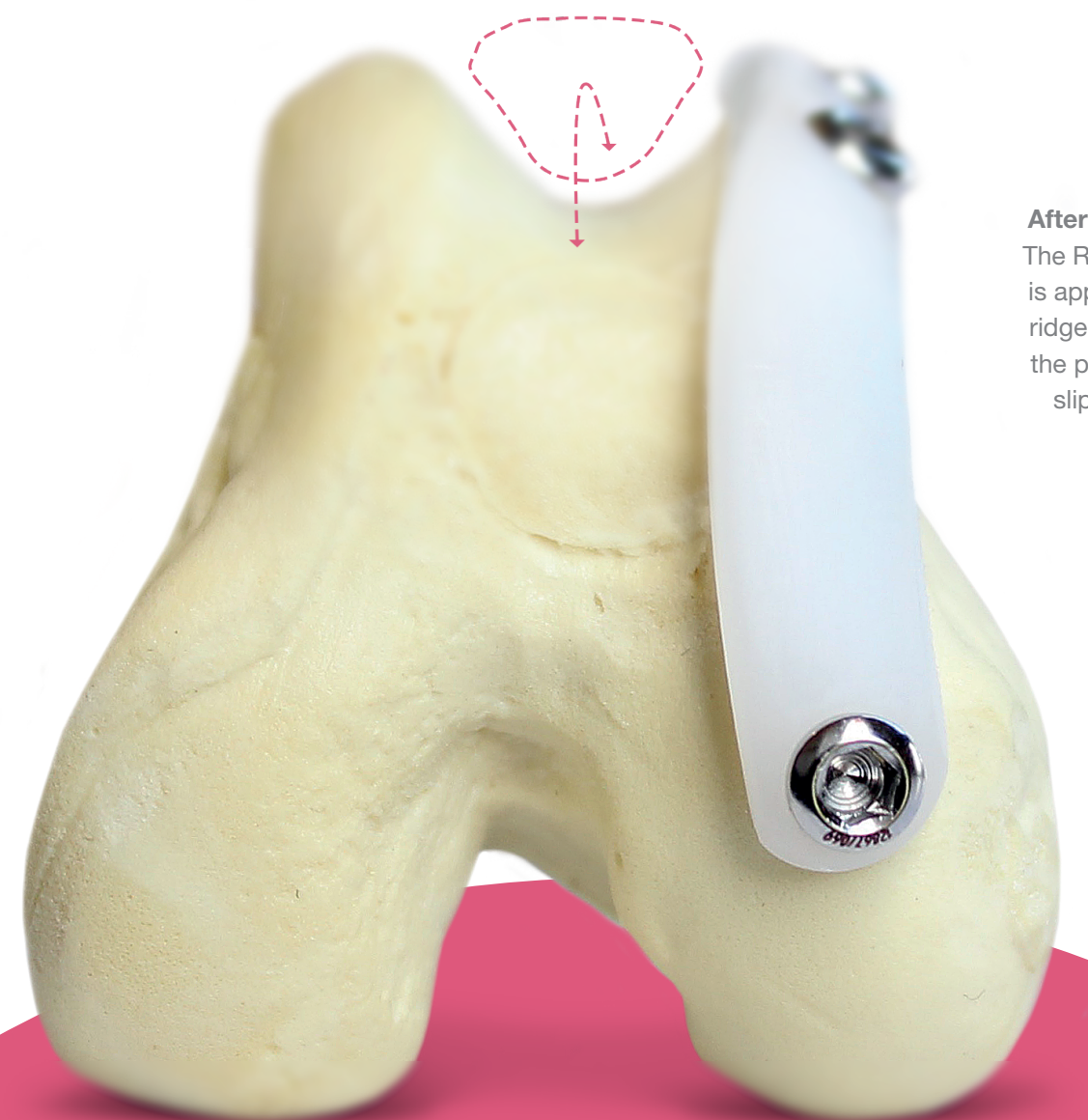
In cases where the surgery involves the sawing of bones, all the forces acting on these bones are countered by the pins and wires or even plates and screws, and whilst these are of adequate strength, they may still fail if excessive force is applied, for example by jumping, running and sudden twisting.



Normal
Patella slides up and down within its grooves



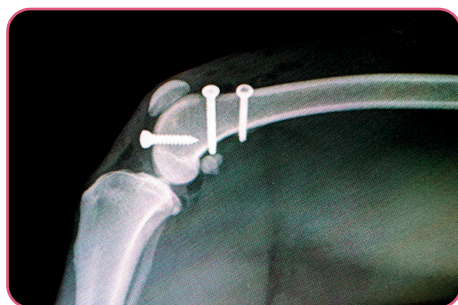
Problematic
Worn ridge causes patella to slip out of grooves



After operation
The RidgeStop™ is applied to the ridge to prevent the patella from slipping out

What does the operation involve?

RidgeStop™ is performed under general anaesthetic.



XRay after operation

The RidgeStop™ is applied to the ridge to prevent the patella from slipping out



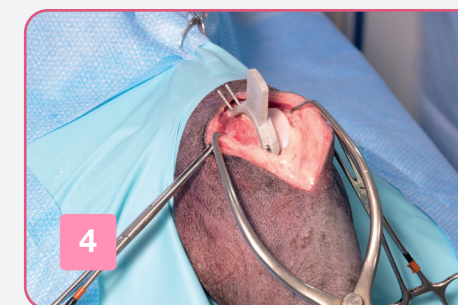
In preparing for surgery, the hair is clipped away from a side area and the skin is thoroughly cleaned.



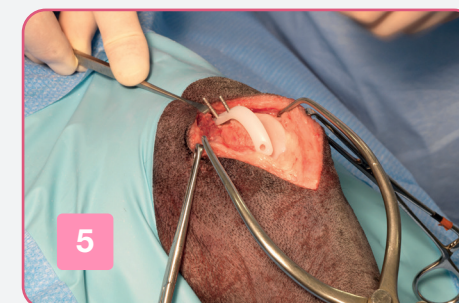
The operation is performed through a surgical incision about 10cm long made on the inside of the patient's stifle (knee).



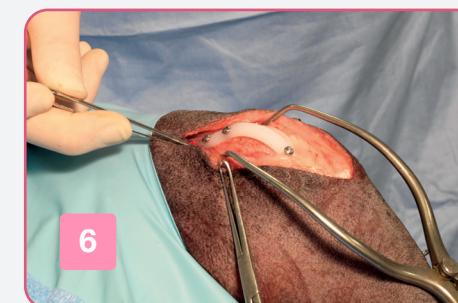
The correct size of drill guide is selected (with reference to the "RidgeSpan" distance determined on preoperative radiographs).



The guide is placed along the trochlear ridge and inspected for position and fit. Using the guide drill holes are made into the underlying bone. Temporary pegs hold the guide in place.



The RidgeStop™ implant is carefully slid over the two temporary fixation pegs and pressed down to its planned position on the ridge.



Bone screws replace the temporary pegs to securely attach the RidgeStop™ implant to the bone. The tissues are then closed over the implant and joint.

How quickly will my pet improve?

Normally you should see your pet start using their leg 3 to 4 days after surgery, and slowly improve over the following 3 to 4 weeks.

There is some individual variation on how quickly your animal will return to full function, and is suspected to be due to having to adjust to the new biomechanical state of the knee joint, and to the implant itself.

Occasionally some swelling is seen postoperatively around the knee joint due to fluid accumulation under the skin (benign seroma), however this usually resolves without incident after a few days or weeks with warm compressing twice daily.

Full activity with unrestricted off-leash exercise is expected by

8-10 weeks



3-4 Days

Weight Bearing

Within three to four days of surgery the patient should be weight bearing while walking

2 Weeks

Increased Confidence

By two weeks after RidgeStop™ surgery patients should be using the operated limb(s) with more confidence with every step

4 Weeks

Walking Strongly

By four weeks after surgery although intermittent lameness may be seen, the patient will typically be walking quite strongly on the operated limb(s)

4-6 Weeks

Follow up X-Rays

Check x-rays are usually done 4-6 weeks after RidgeStop™ surgery and activity levels are gradually increased thereafter if implants are stable

8+ Weeks

Full Activity

Resumption of full activity with unrestricted off-leash exercise is expected by eight to ten weeks after surgery. Complicated healing may delay recovery

What should I expect after the operation?

As no bones have been cut, there is no risk of fracture and therefore no need to restrict exercise after surgery - it is actually encouraged.

However, it is important to take into account that there is still some pain and discomfort after surgery, so a non-steroidal anti-inflammatory painkiller should be used for a period of 4-6 weeks after surgery. You may have been given some antibiotic treatment as well for a few days post operatively.

It is recommended to exercise on a lead only (patients, especially cats, should be confined to a small room with non-slippery flooring and without furniture) to prevent climbing and jumping, running and play until instructed otherwise. Continuous use of an Elizabethan collar is strongly encouraged and bathing and/or swimming are also prevented to reduce risk of contamination or injury to the surgical wound until it has healed, which usually takes 10-14 days.

It is imperative that, if in addition to the RidgeStop™ implant, bones had to be cut and repositioned in your pet, exercise is restricted to controlled lead walks only, no stairs and not letting free in the garden until the bone heals. This can take 2 to 3 months depending on the age of your pet, and is confirmed by postoperative x-rays at the appropriate times as advised by your vet.

Check the wound twice daily for signs of infection or impaired healing (excessive swelling, bruising, oozing of pus or blood, or separation of wound edges) and call immediately if any of these is noted.

All dogs must be kept on a leash for at least

4 weeks



