



## *Perineal Rupture Fact Sheet*

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### **What is a perineal rupture?**

A perineal rupture is characterised by progressive weakening of the muscles of the pelvic diaphragm. It occurs almost exclusively in the male dog, although rare cases are reported in the bitch, and the cat. The precise cause of the condition remains obscure, but is believed to be associated with hormonal influences on the pelvic diaphragm, straining, and congenital or acquired weakness.

The condition develops following deterioration in the supporting function of the pelvic diaphragm.

In the normal animal, the pelvic diaphragm provides lateral support to the rectum as it exits the pelvic canal.

Disruption to this structure permits an increase in rectal capacity, and interference to the normal linear passage of stool during defecation. Rectal enlargement, faecal impaction and straining to pass a motion are the inevitable consequences.

### **What are signs of a rupture?**

Straining to defecate is a consistent feature of perineal rupture. This persistent straining, and the greater reliance on abdominal pressure to promote rectal emptying, can eventually lead to movement of abdominal organs through the weakened pelvic diaphragm. The tissues that most commonly pass into the defect are peritoneal and pelvic fat, and the prostate gland. Loops of small intestine may be seen occasionally. The most serious development is movement of the bladder, which may result in an obstruction to urinate.

### **How will my vet know my pet has a perineal rupture?**

A reducible swelling may be present in the majority of cases. To confirm the diagnosis, rectal examination will be required to reveal a defect in the pelvic diaphragm. In some animals, an abnormal size of the rectum may be apparent.

If the dog has difficulty passing urine, consideration of bladder herniation should be made. This can be a life-threatening complication and immediate veterinary attention is necessary. Ultrasonographic examination of the rupture and/or contrast x-rays will permit localisation of the prostate and bladder.

### **How is this condition treated?**

Perineal rupture is a surgical condition, and there is usually little benefit in delaying repair. In fact, procrastination may result in progressive stretching of the perineal wall and increase the potential for post-operative incontinence.

Perineal rupture repair is straightforward in experienced hands, and recurrence rates of less than 10% are reported. To the uninitiated and inexperienced, however, the surgery is fraught with potential complications, and a high rate of recurrence.

Several procedures have been described for surgical repair. The conventional repair reapposes the muscles of the pelvic diaphragm with the external anal sphincter.

Used on its own, a large ventral deficit remains in the pelvic diaphragm, resulting in recurrence rates of up to 30%. By combining the conventional repair with rotation of a large, healthy pelvic muscle, this ventral defect is closed very effectively. Reported recurrence rates with this combined repair are usually less than 10%. Other repair techniques include the use of other muscles adjacent to the defect or placement of synthetic mesh. The colon and bladder may also be secured to the abdominal wall in severe cases to prevent movement. These techniques are usually reserved for severe recurrent ruptures where more traditional methods have failed.

### **What are the complications of surgery?**

Depending on the size and severity of the hernia, post-operative recovery is usually straightforward. Animals usually stay in hospital for a few days to ensure they are comfortable after the surgery, and passing faeces easily.

In experienced hands, complications of repair are usually infrequent. The main concerns include potential recurrence of the rupture due to breakdown of the repair during the remainder of the dog's life, infection of the wound, and incontinence. Incontinence, if it occurs, is usually a transient problem and occurs due to muscle weakness about the anus. This may be a concern if the hernia was especially large, or had been present for a long period. The potential for incontinence may be assessed prior to surgery, and your vet may advise you more completely of the risk at that time.

Recurrence of the hernia is always a concern, particularly in the younger animal. Castration is usually recommended at the time of surgery, as hormonal influences on the muscle are thought to be important. Continued use of laxatives may also be recommended, to protect the repair from the effects of continued straining.

A large number of other complications have been described following repair of the perineal rupture. This serves as a reminder that the surgery is not straightforward in many animals. Ideally, surgical repair should be undertaken by a vet experienced with this condition, in order to achieve the greatest chance of success, with minimal complication.

If you have any further questions about perineal rupture you should speak to your veterinary surgeon who will be able to discuss this condition with you more fully.

*If you are concerned about the health of your pet you should contact your veterinary surgeon.*