

SCCED

SPONTANEOUS CHRONIC CORNEAL EPITHELIAL DEFECT

What is the cornea?

The cornea is the transparent tissue at the front of the eye, allowing light to pass into the eye. The cornea forms a barrier against debris and infection, but is only half a millimetre in thickness. The cornea is not a single solid piece of tissue, but is composed of layers with differing properties. There are three main layers, the outermost is the epithelium and is in direct contact with the tears. The middle layer forms the bulk of the cornea and is called the stroma and the very thin inner layer is called the endothelium.

What is a corneal ulcer?

Ulceration is the erosion of normal tissue (e.g. following traumatic injury). Superficial corneal ulcers involve only the outer epithelial tissue whereas deep ulcers involve the the stroma and in some cases the endothelium.

What are the signs of corneal ulceration?

The cornea is the most sensitive tissue in the body and even a small ulcer can create a large amount of discomfort. Increased blink rate, profuse ocular discharge and discolouration to the surface of the eye are all common findings. An irregular contour or depression in the surface of the eye may be seen with larger ulcers.

What is recurrent corneal ulceration?

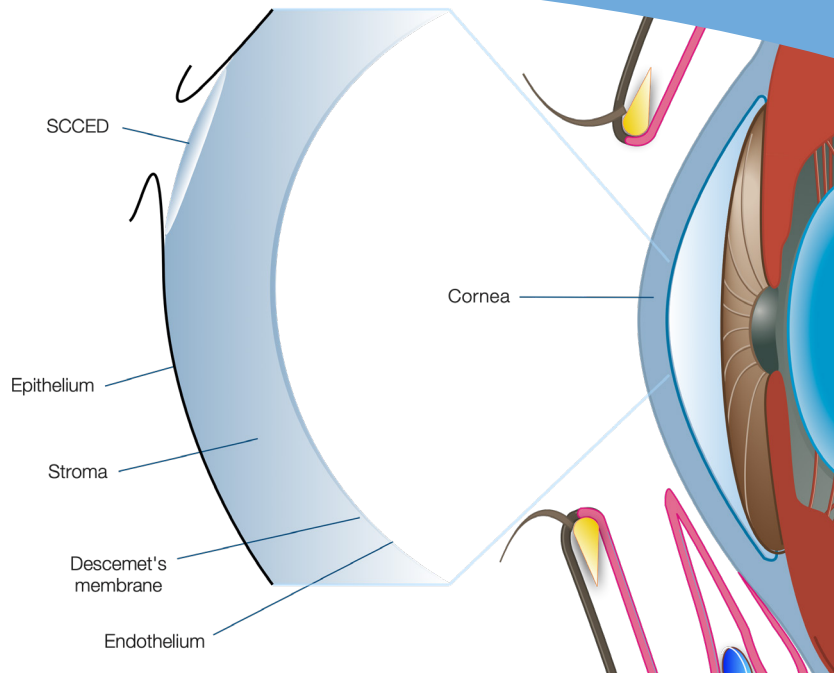
Uncomplicated superficial injuries to the cornea normally heal within 7-21 days. Recurrent corneal ulcers are shallow erosions that do not heal in the 'normal' timeframe. In recurrent corneal ulceration new epithelial cells are unable to 'stick' to the underlying stomal layer and a loose under-run edge can occur.

What is the treatment for recurrent corneal ulceration?

A full ophthalmic examination will be performed to rule out causes of persistent mechanical abrasion such as entropion (see the entropion factsheet). Under topical local anaesthesia the loose epithelial edges of the ulcer will be removed (debridement) and a minor surgical procedure (keratotomy) is performed to break through the abnormal underlying layer. The keratotomy allows new epithelial cells to 'stick' and the ulcer can heal. The majority of cases will heal after a single treatment, but some extensive erosions may require repeat procedures.

What happens after the keratotomy?

A contact lens may be applied to the surface of the eye to improve comfort, but this may not be possible for eyes with an irregular contour. We prescribe topical antibiotic medication and a short



course of oral painkillers following the procedure. The surface of the eye is likely to appear 'red' post-operatively, but this can be reduced with topical medication once the ulcer has healed. We normally arrange a re-examination three weeks after the procedure has been performed.

Are particular animals at risk of recurrent corneal ulceration?

Uncomplicated recurrent corneal ulceration is normally seen in dogs over 7 years of age. Certain breeds are more prone to the disease including; Boxers, West Highland White Terriers and Staffordshire Bull Terriers. However, any breed of dog or cross-breed could be affected.

Is the unaffected eye at risk?

It is not uncommon to see ulcers appearing in both eyes following diagnosis with the disease. If a 'new' ulcer does not heal within a normal timeframe, we would recommend repeat treatment for the affected eye.

What complications could occur with recurrent corneal ulceration?

Any corneal ulcer should be treated as an open wound. If the ulcer becomes infected the deeper tissues can be eroded and require urgent treatment (see the deep corneal ulceration factsheet).