

face

# frown no more

Sydney plastic surgeon **Dr Warwick Nettle** discusses a long-lasting solution to frown lines via corrugator muscle transection. Jessica Rule reports.

While muscle relaxants are a popular and effective method for keeping frown lines at bay, Sydney plastic surgeon Dr Warwick Nettle says there is a more permanent surgical solution for disabling the line-causing muscle.

'Botox is very effective and an excellent treatment that I'd recommend to many of my patients,' he explains. 'However, some people seek a more lasting solution, perhaps because they have strong brow muscles that absorb large amounts of Botox. In these people, the results of muscle relaxants tend to wear off more quickly.'

The corrugator muscle is a small, narrow, pyramid-shaped muscle at the medial end of the eyebrow, beneath the frontalis (the muscle that enables the brows to move up and down) and just above the orbicularis oculi (the muscle surrounding the eye).

'This muscle in the upper brow region runs from the glabella and fans out in a V shape,' explains Dr Nettle. 'When it contracts it pulls the brow in towards the glabella, forming frown lines between the brows. Habitual use of this muscle when you are concentrating, tired or angry results in permanent vertical frown lines like goal posts that get deeper with time.'

Referred to as the 'frowning' muscle, and regarded by many as the principal muscle in the expression of suffering, the corrugator draws the eyebrow downward and inward, producing the vertical wrinkles of the forehead. The repetitive movement of facial muscles is thought to be one of the major causes of facial ageing, around the eyes and the mouth in particular.

Dr Nettle says the corrugator muscle can be targeted surgically to correct or minimise this effect. 'The muscles can be targeted very effectively with anti-wrinkle injections

such as Botox, although the downside of this is that the procedure usually has to be repeated every three to four months to maintain results. The activity of the corrugator muscle – and therefore frown lines – can be permanently diminished by around 60 percent with a corrugator transection, accessed through the upper eyelid.'

The modern corrugator transection involves an incision in the upper eyelid crease, the same incision commonly made in blepharoplasty, then the skin and muscle are lifted and a segment of the corrugator muscle is removed, which can result in around a 60 percent reduction in the activity of the muscle. 'To avoid it rejoining and its function being reinstated, some fat is added from the upper eyelid,' Dr Nettle adds.

A second method to fill in the frown lines entails the insertion of a strip of temporalis fascia. 'This involves removing a thin segment of the covering substance of the muscle in the side of the temple that aids the chewing function,' says Dr Nettle. 'Removing this doesn't have any effect on the normal function of the temporalis. This temporalis fascia graft is then inserted into the glabellar frown lines to help reduce furrows and grooves between the brows.'

The procedure can be performed alone or in conjunction with other surgeries such as a facelift, brow lift or blepharoplasty. 'It does involve a general anaesthetic, hospital visit as well as eight to nine days off work so it isn't a minor procedure like Botox. It will involve bruising and stitches, which can be removed after around five days.'

Dr Nettle says while he wouldn't recommend this procedure in exchange for muscle relaxant injections, for those already planning facial surgery this procedure can achieve a long-lasting correction of frown lines. **acsm**



BEFORE



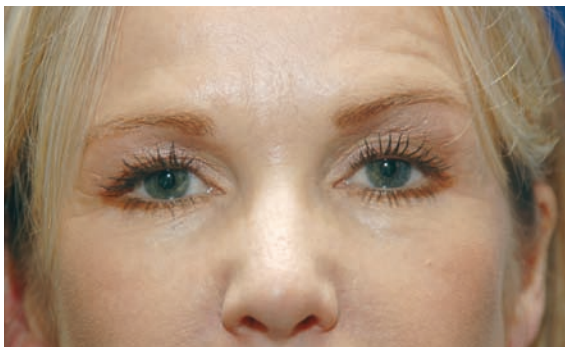
AFTER correction of frown lines by Dr Nettle



BEFORE



AFTER correction of frown lines by Dr Nettle



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