

MR DAVID CHEUNG

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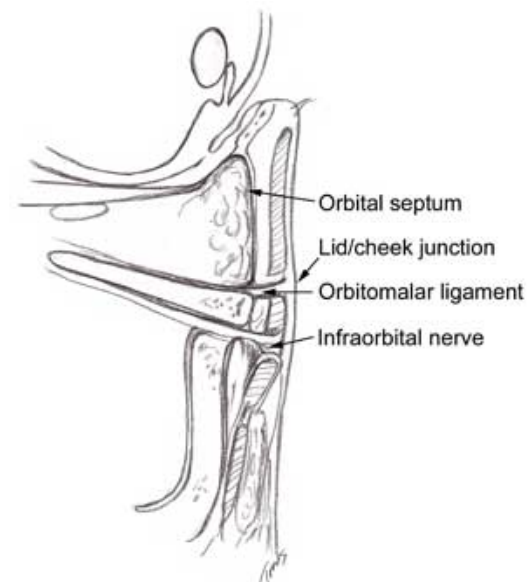
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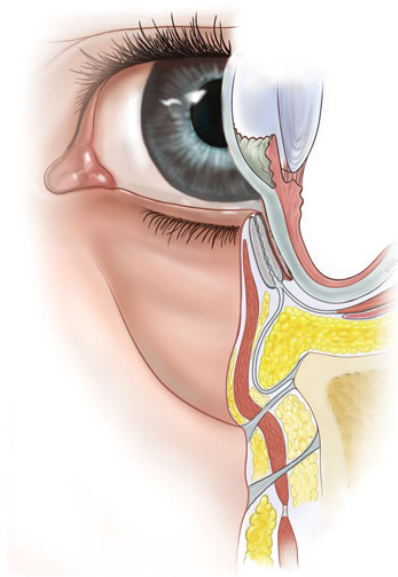
Filler treatments for tear trough rejuvenation, hollow eyes & dark circles

The tear trough deformity

The tear trough is the groove at the junction between where the lower eyelid and the cheek. As we age, one of the changes which is commonly noticed and commented on is the appearance and gradual worsening of dark circles under the eyelids. This occurs due to the thinning of the overlying skin and soft tissue over the bony orbital rim. A band of tethering fibrous tissue called the orbitomalar ligament binds the skin underneath the lower eyelid to the underlying bony rim of the eye socket. In youth, due to the surrounding plump fat, thicker overlying skin and soft tissue surrounding this structure, this ligament is usually invisible. However, with age atrophy of the adjacent tissues and thinning of the skin occurs, leading to increased visibility of this deep attachment between the skin and orbital rim- the so called **tear trough deformity**.



Treatment Options



Various treatment options for the disguising the tear trough deformity exist but all of them are based around two principles. Either to:

- Plump up the tissue around the ligament (leaving the ligament intact) e.g. using filler or fat injections or to
 - Disrupt the ligament altogether i.e. using surgery (lower eyelid blepharoplasty/ lower eyelid bag removal)
- Both treatment principles have their advantages and disadvantages and the suitability of each treatment option varies from patient to patient. For example, some patients benefit from a combination of both surgery and filler injections. Mr Cheung offers multiple treatment options and will be able to advise on the best option for each individual patient.

Injectable filler (Restylane & Perlane) for tear trough rejuvenation/ Tear Trough Filler Treatment

An increasingly popular treatment is the use of injectable implant fillers, especially in patients in their late 30's to 40's, to essentially fill out the trough. Commonly in this age group, the loss of volume at the junction between the upper cheek and lower eyelid, i.e. a worsening tear trough deformity, is the only obvious sign of ageing. Therefore simple replacement of this lost volume without the need for surgery can lead to dramatic improvement. In the past various injectable implants e.g. the patients own harvested fat cells have been used with varying patient acceptability and success. Over the past decade though, injectable fillers such as Restylane & Perlane, which are based on hyaluronic acid, a natural tissue component produced by the body, have been used with excellent safety and effectiveness.

The aim of the treatment is to place the filler deep below the skin and soft tissue around orbitomalar ligament, thereby lifting up the these tissues, making the tear trough appear shallower. In most patients there is an almost immediate improvement with a reduction in the depth and width of the tear trough itself. Dark circles which are often due to shadowing within the trough itself similarly improve. In some patients though, there may remain some residual dark circles due to actual longstanding skin pigmentation built up over many years. In these patients they often notice an enhanced effect from using makeup to mask these lines.

Non Permanent

As with all hyaluronic acid based fillers, there is very slow absorption of the injected material over time and these injections can quite safely be repeated if necessary. As one's face slowly changes with time, cosmetic doctors have now recognised that non-permanent treatments are advantageous since they allow them to maintain harmony rest of the patients face. A permanent implanted material such as silicone given to a patient in their 30's may not look as good or harmonious if it still present when the patient is 80. For this reason, patients and their surgeons are seeking non-permanent absorbable injectable implants since they allow for retreatments in the future, customised for that patient.

Reversible

Another major advantage of these hyaluronic acid based fillers is that they can quickly reversed if the patient so desires. In the rare situation where the patient is not content with the treatment, a small injection of hyalase into the injected implant, an enzyme drug commonly used during cataract surgery for over 20 years, can be used to quickly dissolve the implant.

No Surgery Required

On the whole, the treatments are very well tolerated, being virtually painless with only a small amount of skin numbing local anaesthetic cream necessary applied to the skin just prior to injection. Patients can feel some mild pressure during the procedure itself. The procedure is usually performed within the outpatient clinic and takes about 5 minutes per side. The recovery time is very quick and although patients do notice some mild swelling over the first postoperative week, most of this would have disappeared within 10 days. The material is still mouldable under the skin over the forthcoming weeks to months and this characteristic is very often useful as patients can often self mould the implant to their own liking e.g. to smooth out any tiny visible lumps. Mr Cheung uses a combination of standard injection using needles and also subdermal fanning techniques using Pix'l microcannula depending on the area to be treated. The use of a microcannula has greatly improved the safety, comfort and reliability of treatment recently. Minor

bruising is uncommon with this procedure and usually disappears over 10 days. Most bruising is superficial and light and is easily concealed with makeup.

A first course of treatment consists of an outpatient clinic visit for treatment, then a follow up clinic review two weeks later to reassess and top up if necessary.

Patients may undergo a repeat course of top up retreatment if desired to replace any filler which has slowly dissolved over time, sometimes 12-18 months later.



Tear trough deformity in a lady in her late 30s (left). 20 minutes after injection of Perlane to the tear trough (right) to mimic the soft tissue lost. Notice the increased youthful looking fullness. Besides the mild bruising caused by the injection, there are very few indicators that she has undergone any treatment at all. This lady went straight back to work the following day. Notice the small amount of bruising and swelling. This fades and often becomes inconspicuous within a week

Risks

There are risks associated with any medical procedure however the risks of tear trough filler treatment are very uncommon and Mr Cheung will go through these in detail with every patient before embarking on treatment.

- Infection- As with any type of filler treatment there is a tiny risk that the patient develops a skin infection from the injection. This risk is quite rare and is greatly reduced by the use of sterile injection techniques
- Allergy- very rarely patients are allergic to the filler substance. Mr Cheung would not recommend tear trough filler treatment in any patient who has had any unexplained reaction to dermal fillers.
- Visibility - Uncommonly filler treatment can appear to cause blue discolouration of the skin in bright light. This is more common in patients with very thin skin injected with the higher viscosity fillers such as Perlane. This can be avoided though by careful filler type choice and accurate placement of the filler itself into the deeper layer. For the technically minded, Mr Cheung tends to inject in a fan type configuration under the muscles specifically to avoid this potential problem.

- Migration - there have been reports of late movement of the filler away from its originally injected area. This is quite uncommon but can be very easily treated.
- Vision loss and double vision - Due to the way that the blood vessels of the face interconnect with the blood vessels of the eye, there is a very rare risk of blockage of the blood vessels of the eye leading to blindness. So for example, fillers which are commonly injected into the lips or forehead have a risk of causing obstruction of the blood vessels of the eye resulting in loss of vision. This risk is incredibly rare and most of the case reports have been with the use of injected fat (liposculpture) but can theoretically occur with any type of injected substance anywhere on the face where there is interconnection with the blood supply of the eye. Indeed any clinician practising facial filler work should inform their patients of this risk at the consent process. There are sparse case reports of this happening with hyaluronate based fillers injected elsewhere in the face but taking into context how many facial filler injections are administered worldwide and the number of reports, one can see that it is incredibly rare. As of 2015 there have not been any reports of embolic central retinal artery occlusion secondary to tear trough filler injection but it can theoretically happen. The risk of this complication is theoretically much reduced with oculoplastic surgeons performing this procedure as they have intimate knowledge of the blood vessels around the eye and therefore can avoid them better. In addition the use of blunt cannula techniques should reduce this already minuscule risk even further.

Prices

The typical cost for a course tear trough rejuvenation with injectable fillers by Mr Cheung is around £775.

- The standard cost of a cosmetic consultation appointment to see Mr Cheung first is £100.
- Mr Cheung performs tear trough filler treatment at BMI The Edgbaston Hospital, Birmingham
- Due to recently introduced hospital and pharmaceutical industry regulations, Mr Cheung is unfortunately no longer able to offer a fixed price inclusive package for tear trough filler treatment. The total fee for treatment will comprise of two separate charges - Mr Cheung's surgeon fee and the hospital's fee to supply the actual filler to the patient.
- Mr Cheung charges £550 to administer a course of tear trough filler for both new and returning patients. This will include the actual injection of the filler and any necessary review appointments.
- The BMI Edgbaston hospital will separately invoice the patient for however much filler is used. As of December 2014, prices are: Restylane 0.5ml vial £75, Restylane 1.0ml vial £120 and Perlane 1ml £125.
- Most patients require about 1ml of filler. However for patients who have excessively deep troughs, larger volumes of filler may be necessary.
- Perlane is Mr Cheung's current filler product of choice for most patients. For patients with very thin skin, the less viscous Restylane is used instead.
- On average, Perlane lasts 12-24 months whereas Restylane lasts 9-18 months.