

**W**hen you say the word "fat", what naturally springs to mind? Something undesirable perhaps: a fat belly, fat thighs, love-handles, a double chin - something you want to get rid of. Fat removal is one of the most commonly performed cosmetic surgical procedures in the world. But what about putting fat back in? Is there a place for replacing fat that has been lost over time? Consider this: the ageing face does not only descend and fall due to gravity and loss of elasticity and collagen - it deflates. A youthful countenance is characterised by a smooth fullness due to an abundance of fat under the skin. It is this fat that provides a heart-shaped face, attractive highlights over the brow, cheeks and lips and frames the eye. There are no hollows or shadows in a youthful face, thanks to fat. Think of the face as a grape. Over time, the grape becomes a raisin with loss of volume, with redundant, lax skin becoming obvious. A facelift will transform the raisin into a pea, by removing the redundant skin, but in itself will not restore volume. Only by adding back volume can the raisin return to appear as a grape, and look youthful again. The fundamental change from youth to age lies in the overall change in facial volume and shape. How do you immediately perceive one individual as being 15 years of age and another 35 years of age? Both may have perfectly clear skin, no lines or wrinkles, yet you can still tell - instantly - that one is a teenager and the other in her thirties. The answer, once again, lies in facial volume. After 35, gravitational forces begin to play a role in aging and facial tissues sag as well as contract. At this point, a combination of face lifting procedures and volume restoration provide optimum rejuvenation. In selected patients, fat transfer can provide excellent facial cosmetic enhancement either alone or in combination with other rejuvenating procedures.

## What is fat transfer?

Fat transfer is a procedure in which fat tissue is taken from one part of the body and transplanted to the face to restore facial volume, improve features, fill hollows and smooth contours. It is not a new procedure, and has been performed since the early 1900s. However, when liposuction was popularised in the 1980s, it became increasingly popular as a rejuvenating procedure, pioneered to a great extent by Sydney Coleman of New York and Roger Amar in France. During fat transfer, fat is typically taken - under local anaesthetic - from the tummy or thighs, and injected into all areas of the face, including the cheeks, under eyes, temples, brow and forehead.

## What are the benefits of fat transfer?

The main benefit of fat transfer is the ability of fat to restore facial volume and provide a more youthful and pleasing appearance. Full face fat transfer can restore facial proportions, recreating the heart-shaped face of youth, fill under eye hollows, enhance attractive features such as cheekbones, improve skin quality and eliminate unattractive hollows or shadows. When large volume restoration is required, fat transfer is preferred over dermal fillers; each syringe of filler usually contains just 1ml of hyaluronic acid, compared to over 40ml of fat transferred during a fat transfer procedure. Fat is also autologous, meaning it comes from self, so there is no risk of allergic reactions. It can also be performed under local anaesthesia and is minimally invasive; fat is injected through tiny punctures. An added benefit of fat transfer is that fat needs to be taken from a harvest site and can help remove stubborn tummy or thigh fat - two procedures in one!

## How is the procedure performed?

Fat transfer is a surgical procedure and is performed as such, using strict aseptic technique, in a sterile environment. All instruments are sterilised in a vacuum autoclave, a device that ensures hollow instruments are sterile. The preoperative assessment and plan are imperative for fat transfer, and can take even longer than the procedure itself. Markings are made on the harvest site and the sites where fat is to be injected. The donor site where fat is removed is first filled with a dilute local anaesthetic solution and a blunt cannula is passed forward and back to collect small clumps of fat cells. This is painless as the area is completely numb. Up to 100ml of fat is collected in syringes that contain a little saline solution. The syringes are then left to sit for a while to drain off excess fluid, or oil from the fat. Once it has drained, the pure fat is ready for injection. The recipient sites on the face are then numbed using dilute local anaesthetic together with adrenaline to lessen bruising. The fat is transferred to smaller syringes and slowly injected into the face using blunt cannulas. Several forward and back passes are required to inject each syringe, as only tiny parcels of fat are injected at a time. This is crucial to obtain a good result and minimise complications such as bumpiness. A

by Dr Peter Prendergast

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number of millilitres of fat are injected into each anatomical site, at varying depths depending on the area, from above the bone, into the muscle, into the subcutaneous fat and very close to the skin in certain areas.

## What happens after the procedure?

Following fat transfer we prescribe antibiotics for a few days, and provide instructions to reduce swelling. Swelling is inevitable following fat transfer because blunt cannulas are used and a large number of passes are made to deliver the fat to the recipient sites. Blunt cannulas are important to reduce the risk of injuring blood vessels and nerves. Also, each injection of fat must be tiny so that it can receive a new blood supply and survive, and to prevent lumpiness. Swelling is reduced using cold-compresses for a few days and sleeping with the head raised on a few pillows. Follow up appointments are scheduled and stitches, placed in the small entry site incisions, are removed 5 days later.

## What are the potential complications or side effects with this procedure?

Fat transfer is generally a safe procedure that can be performed on an out-patient basis under local anaesthesia. The most significant side-effect of fat transfer is post-operative bruising and swelling. Bruising can take 1-2 weeks to fade, whereas swelling can sometimes linger for several weeks. Other potential complications include unevenness or asymmetry, which can be improved on 'touch-up' procedures after the initial procedure, infection, skin numbness, and suboptimal enhancement. After fat is transferred, usually only 40-50% of the fat cells 'take', so that 50-60% will die away, usually due to inadequate blood supply. This is normal, and is addressed during a second or subsequent procedure to complete the enhancement.

## Am I a suitable candidate for fat transfer?

The easiest way to determine if you would benefit from fat transfer is to find a photograph of yourself when you were younger - say, 15 years ago. If you appear to have more fat on your face, especially around your eyes and on your cheeks, then you are likely to benefit from a restoration of volume using your own fat. Fat transfer is often combined with face lift procedures, whether they be surgical or using threads. To determine if you are suitable, you must have a consultation with your surgeon when you can also be assessed medically. Contraindications include pregnancy and breast feeding as well as warfarin and aspirin therapy. You are also unlikely to be a candidate for treatment if you have diabetes, smoke heavily or have any other significant systemic medical condition.

## How long do the results last?

The small parcels of fat that are transferred to the face must acquire their own blood supply in order to survive. If this

is achieved, and fat has truly 'taken' it has the ability to be permanent. Top-up procedures are often necessary initially to balance out and fine-tune the cosmetic result, especially since about half of the fat transferred will not survive. Once fat has survived in its new site, it will behave like fat anywhere, and enlarge or shrink if weight is gained or lost respectively.

## How much does fat transfer cost?

Fat transfer costs approximately €3000 upwards, depending on the extent of treatment and how many procedures are performed. Given the volume that can be restored using fat, compared to soft tissue augmentation with fillers, and the potential for permanence, it appears to be cost-effective in the long term.

For more information on fat transfer or fillers, contact Venus Medical Beauty on 01 2962747 or visit [www.venusmedicalbeauty.ie](http://www.venusmedicalbeauty.ie)



Dr Peter Prendergast BMEDSC MB BCH BAO MRCSI

Dr Prendergast, Venus Medical Beauty's medical director is a member of the Royal College of Surgeons in Ireland, British Association of Cosmetic Doctors, American Academy of Aesthetic Medicine, American Society of Laser Medicine and Surgery and numerous other international societies. He has been invited to speak on various topics relating to cosmetic medicine in Ireland and abroad. He works in Dublin, Cork, Galway, Belfast, Singapore and Italy.

For further information log onto [www.venusmedicalbeauty.ie](http://www.venusmedicalbeauty.ie)