

Cosmetic surgery in men

Nakul Kain, Plastic Reconstructive and Aesthetic Surgeon;¹ Olivier Amar, Plastic Reconstructive and Aesthetic Surgeon¹

¹. Cadogan Clinic, 120 Sloan Street, London

Social pressure to look good is part of the reason almost 1 in 10 cosmetic surgery procedures in the UK are performed in men. However, they are not without risk. Here the authors consider what is on offer to men as well as the dangers to be aware of.

Cosmetic surgery in men accounts for over 8% of all cosmetic surgeries performed in the UK and the USA, which has remained consistent over the last 10 years.^{1,2} Current trends in society and social media place a high emphasis on men looking young, fit and well-proportioned and, as with cosmetic surgery for women, the array of cosmetic surgery available to men is broad. This rise of cosmetic surgery in men means that clinicians, especially GPs, are seeing more male patients in regard to cosmetic surgery. The aim of this article is to provide an overview of the current trends, what procedures involve, and the pitfalls and red flags to be aware of.

Cosmetic surgery

Cosmetic procedures can be considered non-surgical or surgical. According to the American Society of Plastic Surgeons (ASPS), the top five non-surgical procedures chosen by men include botulinum toxin A, laser hair removal, microdermabrasion, chemical peels and soft tissue fillers. These non-surgical 'tweaks' have become increasingly popular among men, with an overall 72% increase compared with 2000.¹ The growth of non-surgical procedures over surgical procedures in men is often due to the



Botulinum toxin type A (Botox) is the most widely used cosmetic treatment in the world. Current trends in societal pressures mean that more men than ever are seeking medical advice on cosmetic procedures, such as Botox

quicker recovery and the scarless approaches they permit.³

In men, physiological and anatomical differences mean that the ageing face can manifest differently compared with females.⁴ In men, changes in skin and subcutaneous tissue occur gradually over time, whereas in females the menopause can drive a more sudden propensity for ageing effects.^{5,6} Often, men also tend to focus on specific areas, such as their nose, rather than overall ageing appearance.⁷

Non-surgical procedures Botulinum toxin type A

Botulinum toxin type A is the most widely used cosmetic treatment in the world. Derived from *Clostridium botulinum*, the neurotoxin comes in three main brand names – Botox, Dysport and Xeomin – that are used predominantly off-licence for facial aesthetics.

The products differ in their biological activity and are marketed under various

names. Cosmetically, botulinum toxin type A is used to target different facial/neck muscles for the removal of wrinkles by temporarily paralysing muscles. Common targets can include the horizontal lines on the forehead, the vertical frown furrows that give the 'angry' look, and the 'crow's feet' (seen as lateral surfaces of the eyes when squinting). The effects of botulinum toxin type A can be visibly seen within 1–2 weeks and can be topped up if requested by the patient.

Men have a greater facial muscle mass and facial vasculature than women. This means they require larger doses of toxin to produce similar effects, and they can have a greater tendency to bleed/bruise, compared with women.⁸ Although botulinum toxin type A is a relatively safe drug, improper technique can lead to facial drooping, asymmetry and ptosis of the eyes.^{9,10}

Laser hair removal

As the desire to have a hairless body has increased over time, the popularity

of laser hair removal has concurrently risen.^{11,12} Melanin is the target chromophore in the hair follicle, and the different types of lasers include Nd:YAG, intense pulsed light (IPL), diode, long-pulsed ruby and long-pulsed alexandrite.¹³

Treatment produces the greatest visible change in dark haired, fair-skinned individuals, as the melanin pigment is the target chromophore for the laser and pigmentation changes are low risk in fair-skinned individuals. Treatments need to be repeated to target the anagen phase of hair growth. The ND:YAG laser is associated with the fewest side-effects, and is useful in darker skin types as the risk of dyspigmentation is lower.

Dermabrasion and microdermabrasion

Dermabrasion is the mechanical removal of superficial layers of the skin using a rotatory device.

Microdermabrasion can achieve the same effect as dermabrasion but by using a handheld device containing particles such as aluminium oxide or sodium chloride in a close-looped negative pressure system. This procedure stimulates fibroblast proliferation and generation of new collagen, and is often requested by individuals with rough skin, acne scarring, mottled pigmentation and mild rhinophyma.¹⁴

As with any treatment that breaches the skin surface, signs of active infection such as impetigo or herpes simplex virus must be eradicated prior to any such treatments. In most cases, repeated treatments and aftercare are required, especially in darker-skinned individuals due to unwanted pigmentation changes.

Chemical peels

Facial rejuvenation can also be performed with chemical peels, which act by inflicting a controlled chemical burn to a set depth in the skin, stimulating cellular activity and collagen production. Chemical peels

may be: superficial, (for example, Jessner's solution, hydroxy acids) to treat minor photoaging, superficial hyperpigmentation, surface irregularities; medium, (for example, 20–35% trichloroacetic acid) to address superficial rhytides, minor scarring and actinic keratoses; or deep, (for example, 45% trichloroacetic acid, phenol) to treat deep rhytides and deeper dermal scarring.¹⁵

Although the deeper peels penetrate the skin more than superficial peels, the recovery period from erythema becomes more significant, and the complication rate also escalates – which can include pigmentation changes, infections and scarring.¹⁶ To avoid pigmentation changes, patients must avoid sun exposure and smoking, and they require a pre-treatment course of topical tretinoin (+/- antiviral medication) that is stopped one week prior to peel treatment.

Although most men prefer more superficial peels due to the quicker recovery, their anatomy of thicker, more sebaceous skin with greater density of hair follicles and deeper wrinkle lines compared with women mean that deeper peels are often required to produce the desired effect on their skin.¹⁶

Injectable fillers

The use of soft tissue fillers has increased 101% since 2000.¹ Cosmetic fillers are often used to address facial skin volume loss and soft tissue augmentation. Filler properties vary greatly but can be classified broadly as temporary or permanent, synthetic or biological. The depth of injection within the skin is specific to the type and the brand name of the filler. If this product information is not respected, visible lumps and/or a bluish discolouration (Tyndall effect) may develop if injected too superficially.

Hyaluronic acid (HA), which is a glycosaminoglycan found in the ground substance within the dermis, is by far the most popular filler but



Figure 1. Photos of the right brow/forehead before (1a) and six weeks after (1b) treatment with hyaluronic acid filler. The filler has helped to reduce scar tether. Patient consent obtained

requires repeat injections as absorption occurs over six to nine months. Common brand examples include Perlane, Juvederm, Restylane and Belotero.

The popular target areas for filler treatment in men can often differ from women. For example, women tend to have more lateral cheek than men.⁴ Therefore, care must be taken in men to avoid injecting filler too laterally. In men, non-surgical rhinoplasty with fillers is a popular alternative to surgery for those who require subtle changes in contour or who want to avoid surgery. Fillers can also be used to mask scars (see Figure 1).

A prominent jawline is another common filler target for men.⁷ Patients need to be aware that hyaluronic acid expands over time due to absorption of water, so that swelling occurs 3–5 days after treatment. Permanent fillers can also be used and are formed from different synthetic compounds. Although longer-lasting, adverse events such as nodules, oedema and granuloma formation are more common and necessitate a more vigilant follow up.¹⁷

Surgical procedures

Although non-surgical treatments in men have increased in popularity, there is a limit as to what can be achieved. Surgical treatments, though with greater risk, can produce more permanent results. Currently, the most common procedures are rhinoplasty, ear correction surgery, eyelid surgery, liposuction and male breast reduction.

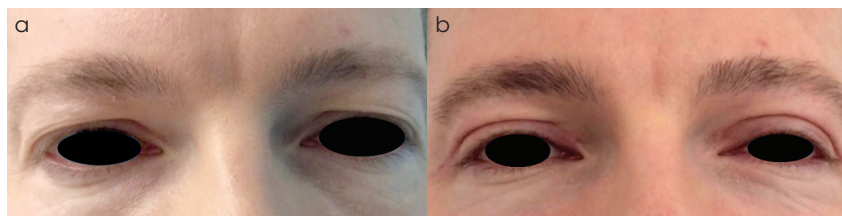


Figure 2. Photos of a male patient before (2a) and six weeks after (2b) an upper eyelid blepharoplasty. In the preoperative photo there is 'hooding' of the upper eyelid skin that was sitting on top of the eyelashes, which was causing an unpleasant sensation for the patient. The postoperative result demonstrates functional improvement with reduced upper eyelid skin. The early scars will mature and become inconspicuous over time. Patient consent obtained

Rhinoplasty

Male rhinoplasty has remained one of the most popular cosmetic surgeries that men undergo both in the UK and the USA.^{1,2} In men, rhinoplasty is more difficult due to objective and subjective differences. Physiologically, men have more sebaceous skin, which makes reshaping the nose challenging.

Subjectively, patient satisfaction in

men is more difficult to achieve.¹⁸ As previously mentioned, men can fixate on certain elements of their nose that may or may not be addressed by the surgeon, which may be a result of body dysmorphic disorder (BDD). Naturally, a significant proportion of these patients with BDD present for cosmetic surgery and may need referral for psychological assessment – otherwise surgery may perpetuate their condition and patient satisfaction is unlikely to be achieved.

Open and closed rhinoplasty techniques are available and differ by the presence of an incision across the columella that allows direct visualisation of the nasal anatomy. Surgery may differ from a simple primary dorsal hump reduction to a more complex revisional surgery that may require cartilage grafts (taken from nasal septum, ear concha or rib). It is important to stress to the patient that it can take up to one year, if not longer, to see the final result.

Otoplasty

Ear surgery or otoplasty in men forms nearly 50% of the total number of otoplasty procedures. Nearly 1 in 20 men and women consider their ears to be too prominent,¹⁹ and most of these are men seeking correction of prominent ears that have been present since childhood or as a result of trauma. Some feel embarrassed, some are bullied, while others become increasingly concerned with their appearance over time.

Surgery can be performed under general or local anaesthetic. The procedure involves incisions behind the ear and manipulation of the cartilage via scoring, sutures, excision or a combination of all three. A headband is usually required to support the cartilage after surgery. As with any bilateral procedure, asymmetry can be a unintended consequence. Other complications include extrusion of internal sutures and recurrence of the prominent ear(s).

Blepharoplasty

Eyelid surgery or blepharoplasty was the third most common cosmetic surgery in men and women in 2018.¹ Men can sometimes complain of the 'tired' look, which may be from excess skin and protruding fat pads in the upper eyelid, or the appearance of bags under the eyes.²⁰

Upper blepharoplasty involves excision of excess skin, and this may include removing a strip of orbicularis muscle and/or fat pad(s) (see Figure 2).

For the lower eyelid, fat pads are removed, with or without skin excision. Prior to surgery, patients must not be taking any form of anticoagulation (the time required is dictated by the half-life of the medication) as the rare complication of retrobulbar haematoma can result in complete loss of vision.

Also, overcorrection can result in problems with eyelid closure and dry eyes, while undercorrection can lead to a dissatisfied patient.

Liposuction

Body contouring with liposuction is very popular with men as it can produce visible change with minimal scar burden. Liposuction, since its introduction in 1974, has allowed quite drastic changes to body contouring without the need for open surgery (see Figure 3). The process involves infiltration of the desired target area with a cannula through millimetre incisions. The infiltration solution often combines saline (for hydro-dissection),



Figure 3. Photos of a male patient before (3a, 3c) and six weeks after (3b, 3d) two sessions of liposuction to the abdomen. The preoperative photos with the markings demonstrate the areas to be targeted, which are checked with the patient. This male patient found exercise difficult due to his body habitus, and two sessions of liposuction were used to target areas of fat in the flank and anterior abdominal areas. Post-surgery, the patient felt he was able to exercise more frequently and make dietary lifestyle changes. Patient consent obtained

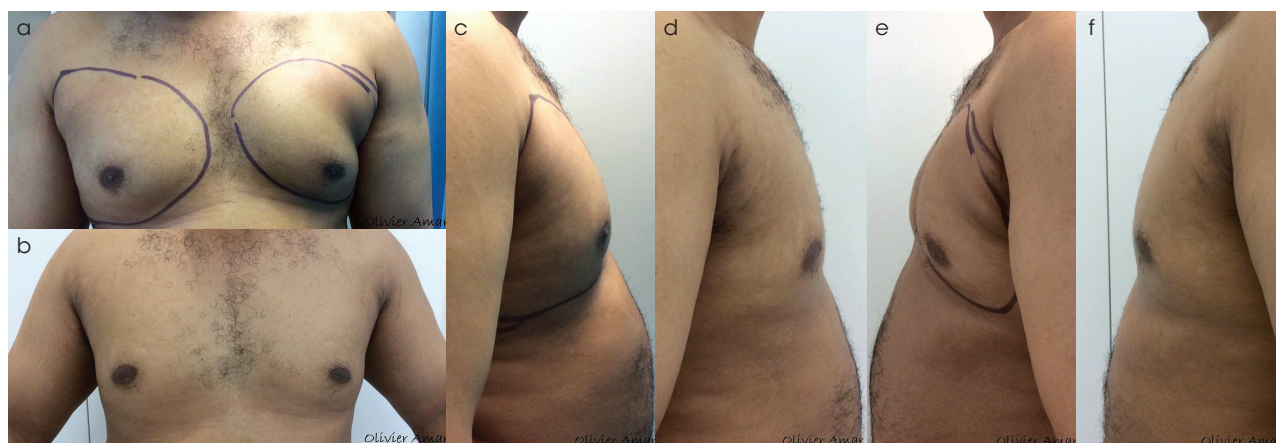


Figure 4. Photos of male breast reduction before (4a, 4c, 4d) and six weeks after (4b, 4d, 4f) liposuction. Preoperatively, the markings denote the target areas, as agreed with the patient. Postoperatively, the drooping of the breast areas has reduced (4b) and laterally there is flattening of the chest wall with a more upward facing areolar complex (4d, 4f). The incisions are 5mm in length and are hidden in the anterior armpit creases (4d and 4f). Patient consent obtained

local anaesthetic (for intraoperative and postoperative pain relief) and adrenaline (to minimise bleeding/bruising). A liposuction cannula is then used to harvest the fat with suction.

Liposuction may be power assisted, ultrasound assisted or laser assisted to improve efficiency, but potential complications escalate accordingly. These can include contour irregularities, asymmetry and bruising. However, patients may be provided with a compression garment to wear that can help to reduce swelling, contour deformities and chronic seroma formation.

Although liposuction is often performed as a day case procedure, significant fluid shifts from extensive liposuction can lead to significant morbidity, and even death in rare cases.²¹ Liposuction can also be combined with body tightening procedures through the use of radiofrequency; however, if there is skin excess then surgery is the only true way of addressing this.

Male breast reduction

Male breast reduction has received a lot of attention in the media in recent years.^{22,23} The presence of gynaecomastia (sometimes referred to as 'man boobs') can be demoralising,

with some evidence that it results in feelings of low self-esteem and social functioning.²⁴

However, gynaecomastia is a relatively common condition, involving benign proliferation of breast tissue in men.²⁵ Surgery may involve liposuction to target the fatty and glandular components and/or excisional methods (see Figure 4). Incisions are usually made around the areolar but may extend further if a significant reduction is requested. Complications such as adverse scarring, asymmetry, contour irregularities and recurrence will need to be considered.

Hair restoration

Men seek treatment for hair restoration far more than women.^{1,2} Hair restoration is not only targeted for the scalp, but can also be requested for the beard. Scalp hair loss is often androgenic and can negatively impact on the self-confidence of some men. Sixty per cent of men with androgenic alopecia were dissatisfied with their level of hair, and 62% report being teased regarding hair loss.^{26,27}

To compensate for scalp hair loss, some men grow their facial hair while others change their hairstyle.²⁶ Hair transplantation is possible because hair in the posterior part of the scalp is

less hormone sensitive and durable compared with the rest of the scalp.²⁸ Two methods exist: follicular unit transplantation (FUT) and follicular unit extraction (FUE). In the former, a strip of posterior scalp is excised from which 1–4 hair follicle groups are separated and transplanted into pores created at the intended site. This leaves a linear scar on the posterior scalp, but a greater density of transplanted hair compared with FUE. With FUE, individual punches are taken from the posterior scalp that are then transplanted to the intended recipient site, resulting in less scarring but more hair transection during the harvest process.²⁹

Whichever method is used, patients need to be aware of the risks of bleeding, poor hair growth requiring further transplantation (which is often the case) and adverse scarring. Hair can be washed, usually two weeks after surgery with the 'pour' method of light shampoo/warm water poured over the scalp without massaging.

Regenerative surgery

As the interest in cosmetic surgery increases, so has the desire to push the boundaries in regenerative medicine. Platelet-rich plasma (PRP) treatment, derived from a patient's

own blood, can be used to enhance skin texture, elasticity and general 'glow', but also with treating alopecia of the skin.³⁰

Nanofat, which is produced by emulsifying a patient's own fat, can be used as filler in the face for acne scars, for example. Stromal vascular fraction (SVF), again derived from patients' own fat, contains concentrated stem cells used for fat grafting, and to regenerate collagen and elastin in the skin.³¹

Summary

Although the number cosmetic procedures in men is less than those in women, the current trend infers they will continue to increase in popularity. The array of procedures, both surgical and non-surgical, has never been as varied and accessible as it is at present, and the likelihood is that this will progress over time as the market further develops. Knowledge of the procedures and the pitfalls are important for clinicians to be aware of as more men seek their advice on cosmetic surgery than ever before.

Declaration of interests: none declared.

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