Abdominal contouring:

The ideal abdominal profile is smooth with no excess skin or bulges. Female and male profiles differ. Each patient has their own idea as to what they wish. Whilst these wishes are to be accommodated, it is very important for patients to understand what the realistic expectations are likely to be achieved through surgery. These outcomes depend on a number of factors, including their body frame, pre-operative size and how patients scar and heal over time.

The abdominal contour changes with age, weight, lax muscle tone and following pregnancies. Many patients complain that they have tried hard to return their tummy wall to its youthful state with exercises and weight loss, but to no avail. Surgical approaches to this problem have to be carefully considered and individualised to each patient. Below is a summary of the techniques used.

Types of abdominal contouring:

Abdominal liposuction: This is a relatively straightforward procedure that leaves tiny scars. The recovery time (downtime) is reasonably quick. However the effect of liposuction alone can be limited (when addressing extremely excessive fat) and can have no significant effect on skin tightening or if muscle laxity is poor. As an adjunct to skin removal procedures (see below), liposuction can prove to be a more powerful technique employed around the abdomen to smooth out well-established, resistant contours. Liposuction can cause unforeseeable irregularities under the skin or contour deformities following the procedure if it is performed too aggressively or if too much fat is removed.

Mini abdominoplasty: In patients who present with a discrete area of excess skin in the lower abdomen (which can also be exacerbated by a caesarian section scar), a mini abdominoplasty may be appropriate. In this procedure, skin and underlying fat is removed from the lower tummy leaving a relatively limited scar in the bikini line. The belly button is left alone during this procedure; again, limiting any obvious scarring. A limited repair of the lower abdominal muscle can be made. Liposuction to other areas of the abdomen can be performed. The operation is quicker (1 to 1.5 hours) than a standard abdominoplasty and the recovery is quicker. Nonetheless, the best results are often reserved for a limited number of patients and this procedure will not change the contour or profile of the upper abdomen, particularly above the umbilicus. Hence, this procedure is not a useful substitute for an abdominoplasty.
**Abdominoplasty:** In this procedure, a large ellipse of skin and fat from the lower abdomen is removed leaving a slightly longer scar in the bikini line. The belly button (still attached to the body by its stalk) has to be re-sited through a new opening in the contoured skin. Improved access gives the opportunity to tighten the whole of the musculature of the anterior abdominal wall and improve skin contouring through direct fat removal and indirectly through liposuction. A long scar is not a bad scar, yet a short scar can be. A significantly shorter, inappropriately placed scar can leave an unattractive contour and should be discouraged. The standard abdominoplasty procedure has a high patient satisfaction rate and excellent results can be achieved in 2-3 hours.

**Apronectomy:** This operation is restricted to post-bariatric or significant weight-loss patients in whom there is a massive overhang of skin and fat. The scar can extend around the complete lower half of the body as part of a lower body lift or just at the front and sides of the lower trunk. Additional scars may be employed. A Fleur de Lys procedure also involves a midline vertical scar on the abdomen in cases of extreme skin and soft tissue excess. These apronectomy procedures can take up to 5 hours and the recovery can be prolonged. Nonetheless, the results will be startling.

The most appropriate procedure will be discussed with my patients pre-operatively and the nature and risks of the procedure(s) are explained in detail. Photographs are available for viewing.

**Other useful information:**

**Pre-operative advice:** You should avoid Aspirin and related anti-inflammatory medication for four weeks prior to surgery as they can promote excessive bleeding or bruising. Smokers also have a higher risk of complications, and this habit should be avoided for 4 weeks before and after surgery. The contraceptive pill or HRT should be stopped for 4 weeks pre-operatively. A pre-assessment is arranged by the hospital or clinic prior to admission.

**On admission:** Patients are admitted on the day of surgery and checked by the nursing staff. The anaesthetist will see you as a general anaesthetic is required. Mr Adams will take photographs and consent will be obtained.

**The operation:** The details of the procedure will have been discussed. A combination of fat and/or excess skin is removed. The wound is closed with self-dissolving stitches and tape is applied. Surgery around the belly button uses removable stitches. Following abdominoplasty operations, a drain (or two) is mandatory and exit discretely in the pubic area. Liposuction alone does not require drains.
What to expect following surgery: There will be swelling and bruising in the hours and days following surgery. A binder (support garment) is fitted before waking up. This helps reduce swelling and helps to support and contour your abdomen. This will be required for 4-6 weeks, but can be removed to wash and shower from 5 days after surgery etc. Patients who have liposuction stay one night usually; those with drains tend to stay two nights, before the drains are removed. Bruising may last for up to 2-3 weeks. Pain is not a significant feature of these operations, but discomfort is to be expected, especially when gently mobilising around the home. However, a number of analgesics (pain killers) will be provided at discharge from the hospital and should be taken regularly for up to 2 weeks.

Follow-up: Patients return to the hospital at one week for stitch removal from around the belly button and to replace dressings as necessary. Stitch removal and dressing changes are performed by the dedicated nursing staff at the hospital in which the surgery is performed. Patients are seen by Mr Adams at 4-6 weeks and 6 months post operatively in clinic. Appointments are sent directly by his secretary. Importantly, Mr Adams is always available on request at all stages throughout this recovery period.

Risks and complications: As with all surgery complications can occur. In the initial stages, there is a very small risk of bleeding which might manifest itself by greater than expected oozing in the drains. The most significant complication relates to delays in wound healing at the wound edges (especially in smokers or those with uncontrolled blood pressure or diabetes). Bruising can take 2-3 weeks to settle.

Swelling of the lower abdomen above the scar line can take several months to resolve. This swelling is related to persistent soft tissue oedema (fluid within the tissues) and is largely unpredictable. Gentle massage and patience is required to allow this to resolve.

The scar can look lumpy at first but flattens over 8-12 weeks. The scar will often remain red for up to 12 or 18 months before fading significantly. Numbness above the scar line is to be expected and will take time to resolve. Persistent numbness may be present and not significantly different to that of the numbness experienced above a hysterectomy or caesarean section scar, for example.

A seroma (collection of straw-coloured fluid) can develop a few days or weeks after an abdominoplasty, and whilst often not a problem, it may become noticeable and require intermittent drainage using a syringe in the clinic. Seromas usually settle spontaneously over time, but rarely, this can be prolonged.

Wound infection can present with redness and a hot skin surface with or without a gap in the wound where discharge might be present. Antibiotics may be required and the wound
usually resolves spontaneously. Occasionally, some scar asymmetry or skin excess may be observed, which might require surgical correction.

Rarely, an area of numbness can occur on the outer or anterior aspect of the thigh following surgery. If this happens, the numbness is expected to resolve over time.

**What happens after I leave Hospital?**

**Wound Care:** Micropore tape is applied directly to the scar in theatre. A splash proof outer dressing is also applied over the tape. A binder (see below) is fitted. Dressings can be inspected or exchanged before leaving the hospital. Drains, if present, will be removed on the second postoperative day before leaving the hospital. Dressings may be required once or twice per week for 2 weeks and will be arranged by the cosmetic nurse. The wound should be kept dry for 5-7 days and then showering is mandatory, with the tape still in place. Tape applied to the wound should be left for up to 4 weeks to provide support. Massage to the scar can take place from 4 weeks once all the tape has been removed. The tape gets wet (it is not waterproof) and dries on the skin as before. Soaking in a bath should be avoided until all wounds have sealed.

**Stitches:** Stitches are removed from around the belly button at one week. The rest of the stitches are self-dissolving under the skin. Occasionally, stitches can migrate to the surface of the scar, which can look like red patches along the scar line. Sometimes the stitches can be felt as splinters. They are usually left to dissolve on their own, and can be massaged from 4 weeks.

**Pain relief:** The abdominoplasty procedure can be quite painful and uncomfortable for the first week. This is especially so after the tummy muscles are tightened. Regular pain relief should be take for 1-2 weeks, and include Paracetamol or Paracetamol/codeine mixes in combination with other anti-inflammatories. Stronger pain relief can also be provided. These tablets are prescribed prior to leaving the hospital.

**Sleeping and posture:** Most patients will feel significant tightness in the lower tummy and may not be able to stand completely straight for 2-3 days. This will resolve completely over one week. Some back pain may be felt because of this change in posture, but this too will tend to resolve as mobility improves. Lying on the side can also be uncomfortable. The best sleeping position is on the back with plenty of pillows to maintain a propped-up position. This will relieve both the back and the lower abdominal tightness and scar.
Binder/support garment: This garment is measured pre-operatively and fitted at surgery. It should be worn day and night for 4 weeks. The aim is to protect the muscle repair when straining or coughing, and it helps to bring the tissues together and minimise the risk of a seroma (body fluid) collection under the skin. It also helps to mould the tummy skin, especially if liposuction has also been employed. Occasionally, the binder becomes intolerable, and this may be a sign to loosen it during episodes of swelling (later in the day, or following a meal etc.). The duration of use may have to be curtailed. The binder should be removed and washed if it gets soiled, and must be removed before showering.

Clothing: Swelling should be expected for up to 12 weeks. Persistent swelling can be prolonged for a number of months in some uncommon scenarios, such as persistent tissue oedema. Avoid tight clothes for a few weeks, as this can inadvertently mould the tummy incorrectly. A tight-fitting belt may also cause a problem just above the scar line.

Follow-up: The cosmetic nurse will see patients at one week following the operation for scar inspection, change of dressings and belly button stitch removal. Other nurse appointments may be made accordingly, or at the GP Practice if your doctor is happy for this. Mr Adams will arrange out-patient appointments for 6 weeks and 6 months.

Activities: Rest at home with gentle mobilisation about the house is required for 2 weeks. Patients are NOT advised to stay in bed for lengthy periods of time because this will increase the thromboembolic risks (see below). Light housework is permissible after 2 weeks, building up to normal activities by 6-8 weeks. Vigorous sports and heavy lifting should be avoided for 12 weeks.

Other advice: Patients may experience a degree of constipation as a result of both reduced activity and the analgesics that are used following the operation. Laxatives are useful to help reduce straining when opening the bowels. Increasing the fibre content of the diet will also be useful. Liquorice, prunes or dried fruits can be very helpful. Heavy meals should be avoided. Please ask Mr Adams for further advice about this.

Causes for concern: The main problems following abdominoplasty operations are related to wound healing problems and, rarely, deep vein thrombosis. These will be discussed pre-operatively. Wound infections and delays in healing are relatively common. Increasing age, Diabetes and smoking increase these risks. Wound infections may occur centrally at the point of maximum tension on the scar. Rarely, the wound may split open and a little discharge is likely. In the absence of cellulitis (red, hot surrounding skin) with no feelings of being unwell, then these wounds are dressed regularly and kept clean. Spontaneous resolution is expected after a period of delay. Patients are likely to require antibiotics if signs of cellulitis are present. Medical advice should be sought either through the hospital, GP or Mr Adams’ secretary. Avoidance of smoking is critical during this time.
Deep vein thrombosis (DVT) is a clot in the veins of the calf or pelvis and can be a serious complication if the clot separates and goes into the lungs. The usual symptoms of DVT are a painful swelling in one calf occurring several days after the operation, which may or may not be associated with breathlessness, coughing of blood or pain on deep breathing. Urgent medical advice should be sought if these symptoms occur. The risks of DVT are significantly reduced by early mobilisation after the operation, avoidance of smoking and wearing the compression stockings provided by the hospital until patients are fully mobile once more (between 2-3 weeks post-operatively).

Patients must seek advice if there are any problems or questions related to this.