

Editorial

Brazilian Butt Lift: Recent Guidelines to Avoid Complications

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Although the name is Brazilian Butt Lift, this gluteal fat grafting procedure is being done all around the globe; and is one of the fastest growing aesthetic procedure in the United States. There are other forms of buttock lift surgery, as for example placement of silicone implants, but the fat grafting procedure is known to provide more natural looking results.

But, the Brazilian butt lift by gluteal fat injection may have higher risks than the other aesthetic surgical procedure and pulmonary fat embolism is one of the most devastating complications of this procedure that can be fatal. Despite the growing popularity of gluteal fat grafting, it does have a significantly higher mortality rate. In 2017, the death rate of approximately 1/3000 was the highest for any aesthetic procedure¹. The ASERF (Aesthetic Surgery Education and Research Foundation) declared gluteal fat grafting a high-risk treatment in 2017 and suggested specific technical details to reduce the danger of pulmonary fat embolism (PFE). After the death of their patients the surgeon claim that they had injected fat into the subcutaneous fat layer, but all autopsies of deceased BBL patients had these findings in common: 1) fat in the gluteal muscles; 2) fat beneath the muscles; 3) damage to the superior or inferior gluteal vein; 4) massive fat emboli in the heart and/or lungs¹.

No post-mortem examination has yet shown an instance of mortality with fat exclusively in the subcutaneous area, implying that surgeons injected fat into a deeper plane than anticipated. The cause of mortality is thought to be high pressure extravascular transplanted fat entering the circulation via tears in the major gluteal veins, followed by embolization of the heart and lungs. That is why every aesthetic surgeon performing BBLs must be careful and re-evaluate their techniques. The ASERF formed a Task Force to study this complication in 2017. The task force, therefore, offers these following suggestions²:

- 1) Stay as far away from the gluteal veins and sciatic nerve as possible. Fat should only be grafted into the superficial planes, with the subcutaneous space considered safest. If the aesthetic aim necessitates a greater amount of fat than can be injected in the subcutaneous layer, the surgeon should consider staging the treatment rather than injecting deep.
- 2) Concentrate on the location of the cannula tip during each stroke to ensure no unintentional deeper passes, especially in the medial portion of the buttock overlaying the essential structures.
- 3) Use access incisions in such a manner that each section of the buttock has a superficial trajectory; prevent deep angulation of the cannula; and palpate externally with the non-dominant hand to ensure the cannula tip stays superficial.
- 4) Avoid flexible cannulas and moveable Luer lock connections; instead, use apparatus that allows you to regulate the cannula. Vibrating injection cannulas may provide you more tactile input.
- 5) Injection should only be pushed while the cannula is in motion in order to avoid high pressure bolus injections.
- 6) The risk of death should be discussed with every prospective BBL patient.

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According to the results of this survey, fat injections into deep muscle should be avoided, as should utilizing cannulas smaller than 4 mm and directing the injection cannula downwards³. In last few years following publications and recommendations around the world, there has been an increased awareness regarding the dangers of Pulmonary Fat Embolism associated with Gluteal fat grafting. This has been reflected by a significant reduction in the incidence of any PFE which was 1 in 2492 compared with 1 in 1030 reported in 2017. But ongoing training on safe BBL in addition to awareness campaign needs to be continued worldwide, in order to further increase the safety of this procedure.

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