

What is the Multi-Hole Cannula Good For?

Val Lambros, MD

This style of liposuction cannula has properties that differ from those of standard designs. For certain patients and areas, it offers these advantages:

The thin patient - With Minimum fat, who is smooth and wishes to remain that way, but smaller. The “finesse” liposuction.

Abdomens and inner thighs in general - While aspirating these sites, I've had the recurring experience of thinking that the area was coming down perfectly and then after an additional one or two strokes seeing an indentation. This effect is almost nonexistent with the multi-hole cannula, hence smoother contours.

The patient with very soft fat - These patients have little fibrous structure within the fat; it can seem disconnected from the skin and sometimes one can even see the fat moving back and forth beneath the skin when manipulated. These patients are difficult to resect smoothly with the traditional cannula designs. The multi-hole cannula makes these patients much easier to do.

Gynecomastia and fibrous fat - To my surprise this instrument works extremely well with gynecomastia (5 cases: 2 of my own, 3 I observed). In truly fibrous areas like male hip rolls, it is slower than a larger instrument, but it clogs less and takes much less effort.

What it isn't good for:

- 1) **Large volume debulking** - Will take a long time with this cannula. Depending on the kind of fat and hand pressure, it can remove fat as quickly as a 3mm Mercedes tip. This is still not very fast.
- 2) **Fat harvesting for grafting** - Through the person who got me interested in this design for this purpose, I am less enthusiastic. When I compared fat taken with a 3mm two hole Mercedes Luer-lock suction needle and a 3mm Luer multi-hole cannula, there was consistently about 25% more oil in the syringes from the latter instrument. I believe that this indicated more trauma to the fat, which diminishes the overall take.
- 3) **Scarred fat** - Does not seem to do as well as fibrous.
- 4) **Superficial instrument** - Do not let it track subdermally in the legs.
- 5) **Skin laceration** - If the cannula is dragged across the skin with the pump on, the ports are small enough that a thin partial thickness skin laceration may result. Other small orifice cannulae do this as well.



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How can anything get through those little holes?

Multi-hole cannulae behave differently from the standard side-hole, Mercedes and Cobra styles. To those of us who grew up on traditional liposuction, it seems counterintuitive that they should work at all.

The fat globs we see in the tubing vary with the size of the cannula ports. Fat cells are smaller than just about any cannula ports around, even these micro-holed instruments.

In the patient with soft fat, this cannula is as fast as a 3mm three hole Mercedes and will probably clog less. As the fat gets more fibrous, the rate of return slows somewhat.

In general, this cannula does not clog up very much. In very fibrous fat it clogs up significantly less than cannulae with larger ports.

This instrument is most effective and efficient when there is moderate hand pressure applied to the area of aspiration. In some patients there will be a rapid slowing of fat flow and increased bleeding after the initial removal without hand pressure. Increasing force down on the skin will result in much more fat with much *less* blood.

The evolution of the Grams multihole cannula has been interesting in that very small changes in the size, configuration and distribution at the ports make large changes in function. For example, the surgical mind will see twelve holes and assume that more holes would work better still. The forty-hole cannula was beautiful to look at, but the drag was so intense, that it could barely be advanced through the fat.

I was not the first to use this kind of instrument for liposuction, though when the design first caught my interest, I was not aware of any other such cannula.

There are reasons that this cannula has these properties. Anyone who likes to think about things like this can contact me.

I have no direct or indirect financial interest in this instrument or with any other project associated with Grams Medical.

Cannula Specifications

- 1/2" or 5/8" handle
- Standard diameter 3mm
- Standard lengths 24 - 30cm (custom length up to 40cm)
- Use order number: MH?? - 3mm x ??cm - LT or LT2
(Handle Size - Diameter x Length - Lambros Tip 1 or 2)



Lambros Circumferential Holes - LT



Lambros Directional Holes - LT2



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