Sydney cosmetic surgeon Dr Longin Zurek traces the history and evolution of liposculpture, also known as liposuction or lipoplasty. Tara Casey reports.

Liposculpture, also known as liposuction or lipoplasty, is currently the most popular cosmetic surgery procedure in the world, and has evolved considerably over the years.

In 1921, a French surgeon, Dr Dujarrier, attempted to remove fat from the legs of a ballerina using a curette. Infection followed, and because no antibiotics existed, one of her legs had to be amputated.

It was not until 1974 that two Italian father-and-son cosmetic surgeons, Drs Arpad and Giorgio Fischer, commenced work on cannulas to remove fat deposits through a tiny incision. In 1975, they produced a first functional instrument and operated on a group of patients. They published their work in The Bulletin of the International Academy of Cosmetic Surgery in 1976.

That article was largely ignored by plastic surgeons, and the new technique of liposculpture could not easily be disseminated.

In 1976, Dr Fischer travelled to Paris to demonstrate liposculpture on Dr Pierre Fournier’s patients. Then in 1978, Dr Ives Illouz of Paris simplified Fischer’s instrument by using a gynaecological cannula for liposculpture.

The new technique of syringe liposculpture was discovered in 1985 by Dr Pierre Fournier. He wanted to check the effectiveness of anaesthesia by chilling tissue (cryoanaesthesia). He experimented on himself by injecting chilled saline into his abdomen then, using a small syringe with a needle, he made multiple strokes. To his surprise, he found fat in the syringe.

American dermatologist Dr Jeffrey Klein developed the tumescent technique in 1987, which made it possible to perform liposculpture totally under local anaesthetic, making it safer and an almost ‘bloodless’ procedure.

In 1992, Italian plastic surgeon Dr Marco Gasparotti revolutionised liposuction by addressing fat deposits close under the skin, as opposed to previous teaching and practice that advocated working only in the deep layers of fat. This technique is called superficial liposculpture.

At the same time, Brazilian plastic surgeon Dr Luiz Toledo was refining that technique. It is not a coincidence that Drs Gasparotti and Toledo both use the syringe technique.

When Sydney cosmetic surgeon Dr Longin Zurek first commenced performing liposculpture 10 years ago, he used the syringe technique, but later looked at other methods. He learned about ultrasonic liposculpture in 1996 and was the first Australian cosmetic surgeon to travel to Paris to study the technique, though he never adopted it in his practice. He also investigated other methods such as power cannulas, vibrating cannulas and, in recent times, even laser.

In his opinion those devices are very expensive, cumbersome, noisy and can even be dangerous (perforations and burns have been reported using ultrasonic cannulas).

In recent years, Dr Zurek has abandoned the suction machine and reverted to syringe liposculpture, and there have been no significant complications in approximately the 2,000-plus cases he has performed using this technique.
case study 1

Patient in her 60s with large fat deposits under the chin and loose skin

BEFORE

15 months AFTER syringe liposculpture by Dr Zurek. Note the skin retraction. The patient also underwent upper eyelid surgery

case study 2

Patient in her early 60s with a large abdominal fatty deposit with loose skin (fatty apron)

BEFORE

Seven weeks AFTER syringe liposculpture by Dr Zurek. Note the skin retraction, avoiding the need for abdominoplasty (removal of excess skin and fat)
In Dr Zurek’s view, syringe liposculpture has several advantages over the suction machine: there is no risk of breakdown; the syringe is light, easy to use and disposable; recovery is speedy; precise sculpturing is possible (verified on the syringe’s scale); and the quality of results is higher because fewer errors are likely, especially with superficial liposculpturing.

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