

Lipodissolve with Phosphatidylcholine-Deoxycholate (PC-DC) Injections

Injection lipolysis, also known as intralipotherapy, is a minimally invasive medical procedure for targeted fat reduction (lipodissolve). Commonly referred to as fat dissolving injections, intralipotherapy is a form of mesotherapy and one of the nonsurgical fat reduction options available in aesthetic medicine.

What is PC-DC?

PC-DC is a mix of two active ingredients: sodium deoxycholate (DC) and phosphatidylcholine (PC). Sodium deoxycholate is the sodium salt of deoxycholic acid and works by disrupting the fat cell membrane causing its death.

Phosphatidylcholine is naturally found in the human body where it is involved in different body functions, such as being a component of the cellular membrane or metabolizing cholesterol. It is thought to cause the lysis (breakdown) of fat cell membranes. Phosphatidylcholine is extracted from soybean where it is abundant. PC-DC are thought to work well in combination, with DC breaking the fat cells and PC helping to metabolize them.

For sub-mental fat pad (a.k.a. double chin)

PC-DC is injected into the fat under the chin. At the time of injection and for several days following the injections there will be swelling in the submental area. PC-DC will cause the fat cells to diminish gradually in the treated area over the course of the next 3-4 weeks. A series of treatments may be necessary to achieve optimal results, and these will occur at no sooner than 4-week intervals. The number of treatments is decided upon based on response to each treatment and the area being treated. PC-DC is intended to treat small fat pockets; it has no effect on excess neck skin. After dissolving fat, any excess skin may be more prominent. There is a possibility of an unsatisfactory result from injections of PC-DC. The procedure may result in unacceptable visible deformities or asymmetry in the treatment area.

Lipodissolve Treatment Areas

PC-DC is a wonderful aesthetic tool that may have health benefits and provide a less invasive alternative such as possible complications from surgery or the loose skin from traditional liposuction. The results have been found to be quite exceptional. PC-DC, either together or each on their own, have been used for several years internationally for lipodissolve.

PC-DC is used mostly off-label, depending on each country's approval, for the treatment of other localized fat deposits. Common treatment areas are:

- Submental fat a.k.a. double chin
- Infraorbital fat pads a.k.a. eye bags
- Jowls
- Other facial fat deposits such as cheeks and jaw fat
- Axillary fat pads a.k.a. armpit fat
- Male gynecomastia
- Upper back fat rolls
- Bra fat rolls
- Upper arm fat
- Waistline fat
- Abs and six pack definition
- Male and female abdominal fat
- Male and female flanks
- Buttock fat and cellulite
- Thigh fat and cellulite
- Knee fat
- Upper calf fat
- Lipoma (benign fat tumor)

Procedure

The off-label use of this medication has always been justified as a way of offering patients an alternative to surgery. Of particular importance is injection technique because the medication can leave marks in the skin if injected too superficially. Even though this medication can be used with any skin type, a too superficial injection in the skin can leave a permanent mark in a darker skin patient.

Of the concerns, swelling which is directly related to the amount of fat that is dissolved can be quite dramatic and, in the stomach, can temporarily look like someone who is pregnant. For this reason, best-practice advises that a maximum of 10mL per treatment session. Pain and tenderness are possible. The drug also has a destructive effect on the fatty membrane covering nerve sheaths and numbness and temporary paralysis can occur when injected erroneously. Post procedural tenderness varies and pain, although not common, may be dependent on injection technique. Typically, with PC-DC, additives such as lidocaine assist the tolerance and amplify the effects of the procedure.

This is where a customized tailored approach is always decided upon and how we decide to inject is individualized. Not every patient is an ideal candidate.

Post Procedural

Post procedure patients can expect a degree of swelling based on the aggressiveness of the procedure itself. The fat is lysed in a process known as saponification. Deoxycholate (DC) acts as a detergent that disrupts the fat cell membrane, and the contents are spilled into interstitial space. The pockets of destroyed fat can become hard and are cleaned up through the body's lymphatic system. The process of inflammation, as well as a dispersion of fat stem cells, known as stromal vascular fraction, are thought to be responsible for the skin repair and improvement in skin texture and tightening.

Similar Treatments

There are other fat destroying techniques using cold destruction, heat destruction via laser or high frequency ultrasound, and radio frequency (RF). They all have some effect and are also alternative to surgical approaches. Similarly, they work on a small percentage of fat at each session and also offer a non-invasive attempt at contouring the body. The advantage of PC-DC is that the procedure is quicker and offers a less expensive option and an aesthetic benefit to the skin. The disadvantage is the slightly more invasive nature of injecting the substance and post-procedure swelling. Just like all these non-invasive approaches, and even liposuction, certain areas of the body respond better than others.

Alternatives

As explained, not all fat or fullness will respond to PC-DC. Other alternative treatments are liposuction to the area, a neck lift and/or platysmoplasty procedure. Aside from these treatments, additional options for dermal soft-tissue augmentation include, but are not limited to, products such as Belotero, Radiesse, Sculptra, Prolenium, Restylane, and your own fatty tissue. Other options not mentioned here may exist. All options should be discussed with your healthcare provider.