

## Aesthetic Medicine – Human and Bovine Collagen

I remember when in the '80s, I was used to go to Switzerland to buy collagen because in Italy it was not sold yet. It was a first material with many faults, and in particular the one to not be always totally compatible with the receiving tissue. It is one of the most known substances in aesthetic medicine and it has been use for quite some time now. It could happen that in some person it created a reaction.

We were at the beginning of the aesthetic medicine, our operations seems to be magic...

With the time some fracture in the derma occurred, especially created by muscular movement and reduction of intercellular matrix, which is the wrinkles we see. This material substitutes the collagen of the body, filling the furrows that the time created.

It has the great advantage to be malleable and so to penetrate the tissue as any other materials.

The disadvantage is that it does not last long and it costs a lot, and sometimes it does give some allergic problem.

The first collagen on the market derives from bovine. It is a breeding dedicated to this purpose, obviously without diseases, certified, done by a very important and well-known company. It is produced in America in the establishment at Palo Alto, California.

The collagen is extracted from animals, treated in a particular way, and then inserted in a disposable syringe that will be used to fill the wrinkles. It is produced in different density for more and more filling use.

There are particular proteins that can provoke allergy (in a very low percentage). So an **allergic test** has to be done at least 30 days before the first session. I personally prefer to do two sessions every 15 days, the first one on the arm and the second one behind the ear. In this way it is possible to see if there are any late allergies that could come out during the second injection.

The **bovine collagen** is a very ductile material: it pervades the tissue very uniformly and so it can be used also for thin wrinkles with a specific technique, for example for crow's feet wrinkles around the eyes or for the code bar wrinkles, vertical above the lips. There is only one problem, as I said before, the collagen does not last long. It has to be done every 4-6 months and in some patients even before than that.

Ten years later, in the '90s, if I do remember well, a new collagen was on the market. They took out some peptides responsible for the allergic reaction. It is a **human collagen**. With these innovative materials, the allergic test was not necessary anymore. The duration is still the same. The results are still great for superficial wrinkles. This type of collagen is actually more tolerated and the allergic problems or reactions decreased almost to zero.

I personally have many patients who are in love with this particular filler and they would not trade it for nothing else! The technique is very simple and the indications remain for superficial wrinkles.

In the past year, a new collagen was put on the market: the **porcine collagen**. It derives from pig, that is an animal very similar, genetically, to human beings: do you remember the cardiac prosthesis.. still from porcine!

This last collagen seems to last more than the other two, almost a year, and it is also useful for filling the volumes, maintaining the same manageability of the collagen we all know.



**Indication:**

Thin and medium wrinkles

Treatment of all those patients who are intolerant to other substances

Treatment of the volume with more dense formulations