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## Review of the effect of Platelet-rich plasma (PRP) injections, benefits and harm

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### ABSTRACT

Blood plasma is a transparent liquid that tends to yellow. Blood plasma is the intravascular part of extracellular fluid. Blood plasma accounts for about 55% of the total blood volume in the human body. Blood plasma plays an important role in the transmission of water, salts and nutrients such as sugars, vitamins, hormones and others. Passing us age and time was running out for good and no matter how hard we try to keep ourselves and our bodies remain scars age in our faces and bodies we really unavoidable, no escape, one of the ladies afraid from the effects of age and scars on her face and feared that her skin is wrinkled and show traces of age with time for that decision GR LIPA. He was to quit laughing and smiling just for fifty years didn't laugh once lest it appear wrinkled Maybe succeeded with that plan barely, but you deserve to pay the price for happiness laughed and fear of wrinkles and skin youthfulness and lost their shape and slightly slicked and sagging occurs in some places such as swell and lose the whiteness of it and be pockets in our faces and science we find other ways Effective. It seems that the decision was made on this issue since the plasma facial cosmetic world needles to make it jump out to us the results weren't dreaming about her other start.



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### INTRODUCTION

Plasma exists as one of the components of the blood that runs in our veins, blood consists of red blood cells and white blood cells, and platelets transparent means in blood plasma is strength, and that contains vitamins, minerals and hormones, is a liquid that is used within the plasma needles Used for facials, then your treatment out of your blood and veins makes sure the source and safety (Braun *et al.*, 2014) (Anitua *et al.*, 2017) (Patel *et al.*, 2013).

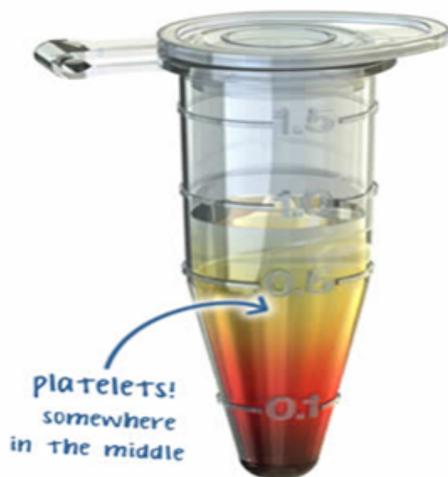
### Prepared of plasma

The plasma is prepared to withdraw a sample of blood from the patient himself and adding contra-indications for clotting blood clotting to fast, and if you do not add these substances, it will destroy the sample. We don't need a huge sample, but samples are almost symbolic, and then placed in special tubes and enter the centrifuge which separated blood components machinery works, (figure1) more specifically separate red and white blood cells in liquid, viscous red thick textures on translucent liquid plasma every component, then plasma is withdrawn and used for injection, and this became our plasma facial needles (figure 2) (Gawaz, 2013).

### A function of growth factors when injecting plasma into the face

The key growth factors involved in functional and essential processes are diverse. Among these factors is the growth factor derived from platelets, which is responsible for strengthening blood vessels and their growth. It is also responsible for cell proliferation and skin formation as well. The beta

growth factor, which promotes the growth of intracellular and intracellular components and is also responsible for bone growth. The epidermal growth factor is responsible for the growth and differentiation of cells, as well as for blood vessels and the formation of collagen and restoration of facial skin. One of the important factors among these factors is the vascular endothelial growth factor. This factor enhances blood vessel formation and helps to support its cells. An insulin-like growth factor, a factor that regulates all the physiological functions of cells in the body. (Al-Grawi, and Al-Awsi, 2018).



**Figure 1: After the centrifuge treatment, platelets are separated from the other components of blood**



**Figure 2: injecting plasma into the face**

### Benefits of injection plasma in face

There are many reasons and situations where plasma injections are used including:

1. The effects that appear on the face with age, such as drooping of the skin and weakness and loss of freshness and smooth touch.
2. The various scars in the skin of the face, such as those that remain after treatment of acne, for example, and bothers many with its bad appearance, which leaves the grooves and holes and scars in the skin.

3. Asymmetry of the skin and its colour, such as the presence of black or dark circles around the eyes, help the plasma to get rid of them and helps to eliminate the pockets that are formed in the skin either as a result of ageing, fatigue, disease or whatever.
4. It has other cosmetic uses, such as the process of supply of lips and the emergence and beautification, and proved plasma effective ability to help the hair growth, so may be used by some in the process of hair transplant and used by others in the cultivation of beard.

You will not find an immediate magic solution after the injection of plasma to the face and will not go out of the injection process, look in the mirror and find yourself got rid of all the defects that I entered them for only thirty minutes, that is far from logic! Plasma needs time to take full treatment so if you want to see the effective results you have to patience and compare in the long term every period will touch the change happened then (Ibraheem and Abed, 2017).

### Plasma injection damage to the face

The use of plasma injections to the face has not been seriously and severely damaged until now. It is only minor and potential effects that quickly disappear with some essential precautions. In the case of injections and to reach the best benefits of plasma to the face do not affect the skin by external factors such as the use of creams and peels and others, give the skin rest and let it calm down. Another important thing is to examine the blood of the patient himself before injecting plasma to make sure that it is free from diseases and viruses because its highness may cause him disease and infection and instead of the treatment of facial skin will increase the injection worse and show a new problem. In some cases, plasma injection alone may not be successful, such as severe relaxation in the skin where the skin needs a facelift with plasma injection (Bell *et al.*, 2017).

The other effects are very simple, such as swelling or simple redness in the skin where the injection and disappears alone after several days and rest, and the slow appearance of the results one of the disadvantages that bother the users do not show the results to several weeks or a month of injection, 3 sessions between each session and another two months but then you will not need to hold any meetings again (Shamran *et al.*, 2018).

### Pre-plasma injection instructions for the face

Avoid exposure to the sun or using skin nailing devices, including self-tanning products, for at least

one week to reduce the risk of temporary tingling after treatment.

Some bruising may occur after plasma injection of the face. Aspirin and anti-inflammatory drugs such as ibuprofen, blood inhibitors, herbal supplements, vitamin E and fish oil should be avoided for at least a week before treatment to reduce the risk of bruising and increase thrombocytopenia. Any bruising that may occur with the make-up as needed can be covered until it gradually disappears during the first week after treatment (Gentile *et al.*, 2015).

The area to be treated should be clean and free from any lotion, makeup or sunscreen. The face should be washed and thoroughly cleaned before treatment. You should not receive any area that will be treated with any chemical peeling or laser for two weeks before and after treatment.

Wax removal or chemical hair removal products should be avoided for two weeks before and after treatment. The shave is allowed before treatment immediately after 48-72 hours of treatment as long as there is no irritation in the skin. If you have a history of cold ulcers, your doctor may recommend antiretroviral prophylaxis in the form of tablets that take one to three days (Moraes *et al.*, 2014) (Al-Thahab, and Al-Awsi, 2018).

#### Tips after Plasma Injection for Face

Some red spots will occur in areas that have been treated and will go away within 1-3 days. The skin may appear tight, dry, swollen, and sensitive to touch. The affected area or areas may be exposed to colouration in one week. Avoid using tweezers or hairline on the treated area or peeling and allow the old, dry and dead skin to peel off naturally (Letson and Dahners, 1994) (Lateef *et al.*, 2018).

After treatment, the face should be gently washed with a mild disinfectant twice a day followed by the placement of hyaluronic acid and serum or creams to feed the new collagen. Avoid makeup for 24 hours and then go back to the usual skin care routine when you are cured. Avoid exposure to the sun until the skin is completely healed, usually in 3-7 days. We recommend avoiding the sun in all treated areas, wearing sunscreen cap (Abed, 2017) (Fallouh *et al.*, 2010).

Do not use peeling drugs, chemicals or products not recommended by the doctor in treated areas for at least one week. Avoid exercise that causes sweating, jacuzzi, sauna or steam baths for 3 days. You may need to take a light dwelling as necessary if you feel uncomfortable and can use ice packs when you want to reduce facial swelling after plasma injection. If there are any problems after

treatment, you should go to the doctor's clinic before an interaction or within 24 hours of any side effects. If immediate care is needed, the practitioner will evaluate the patient, and the necessary treatment will be provided. In Turkey, we provide a free initial consultation for all our patients and methods of care and continuous follow-up after plasma injection of the face. (Filardo *et al.*, 2010) (AL-NASHI and AL-AOSI, 2013).

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