

ADVANCED AESTHETIC CENTER FOR ORAL & MAXILLOFACIAL SURGERY



WHAT IS PLATELET RICH PLASMA (PRP) & PLATELET RICH IN GROWTH FACTORS (PRGF) ?

PATIENT INFORMATION

PLATELET RICH PLASMA (PRP) AND PLATELET RICH IN GROWTH FACTORS (PRGF) HAVE BEEN BREAKTHROUGHS IN THE STIMULATION AND ACCELERATION OF BONE GRAFTING CONSOLIDATION AND SOFT TISSUE HEALING. THESE TECHNIQUES REPRESENT A RELATIVELY NEW BIOTECHNOLOGY THAT IS PART OF THE CURRENT GROWING INTEREST IN TISSUE ENGINEERING AND CELLULAR THERAPY.

THE BLOOD HAS SPECIALLY FORMED COMPONENTS SUCH AS RED BLOOD CELLS, WHITE BLOOD CELLS, OUT OF WHICH THE PLATELETS ARE ALSO ONE OF THEM. THE PLATELETS ARE RESPONSIBLE FOR FORMING THE INITIAL BLOOD CLOT WHEN TISSUE IS CUT AND AID IN PROMOTING WOUND HEALING. AS THE CLOT IS FORMED AT THE SURGICAL SITE, THE PLATELETS CLUMP TOGETHER AS A CONSEQUENCE OF MULTIPLE BLOOD PROTEIN REACTIONS WHICH LEAD TO THE PROCESS KNOWN AS COAGULATION.

WITHIN THE PLATELETS, THERE ARE NUMEROUS GROWTH FACTORS, ALSO KNOWN AS CYTOKINES, WHICH ARE NORMAL BODY PROTEINS THAT PROMOTE, ORCHESTRATE AND ARE CAPABLE OF ACTING ON SPECIFIC HEALING CELLS TO INCREASE THEIR NUMBERS, STIMULATE VASCULAR GROWTH AND DECREASE THE AMOUNT OF SWELLING AND HEALING TIME. THEREFORE, THE USE OF PLATELETS AND GROWTH FACTORS RESULTS IN FASTER HEALING OF THE SOFT AND HARD TISSUES.

PLATELET RICH PLASMA (PRP) AND PLATELET RICH IN GROWTH FACTORS (PRGF) IS OBTAINED BY SPINNING DOWN (CENTRIFUGING) YOUR OWN BLOOD AND CONCENTRATING THE AMOUNT OF PLATELETS AND PLASMA FACTORS GENERALLY UP TO FIVE TIMES THEIR NORMAL AMOUNT. THIS CONCENTRATE IS ACTIVATED WITH CALCIUM TO RELEASE THE FACTORS AND MIXED ALONG WITH THE GRAFTING MATERIAL AND/OR PLACED IN THE WOUND TO HELP STIMULATE CELLULAR PROLIFERATION AND TISSUE HEALING ENHANCEMENT.