

# **AUTOLOGOUS BLOOD CONCENTRATES (PRP, PRF, CGF..ETC)**

Biology, Research, Phlebotomy,  
and Clinical Applications



Presented by Arun K. Garg, DMD  
~ Co-Discoverer of PRP



## COURSE OVERVIEW

This lecture and hands-on course covers the biology and science behind autologous blood concentrates, its clinical applications, and phlebotomy techniques. Attendees learn an inexpensive, scientifically proven method to enhance patients' hard and soft tissue healing with the use of a simple centrifuge.

## COURSE OBJECTIVES

Attendees will learn how to

- Improve subepithelial connective tissue graft success.
- Decrease postoperative complications with pharmacological strategies.
- Increase revenue through patient satisfaction and referrals.
- Perform venipunctures and phlebotomy procedures.
- Rely on dental assistants as a way to greatly simplify the preparation of concentrates.
- The benefits and shortcomings of various commercially available centrifuge systems.



## THE HISTORY OF PRP

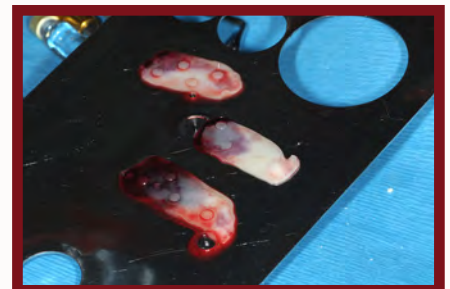
After first being discovered by Drs. Robert Marx and Arun Garg, PRP gained widespread acceptance in ALL the medical surgical specialties, and in recent years has regained tremendous resurgence in dental surgery again. As an easy to use, low cost biomaterial that facilitates tissue regeneration, PRP is a natural way to greatly enhance your patients' surgical results!

## BIOLOGY BASICS: WHAT IS PRP?

PRP is a biologic isolate from whole blood that is preferentially enriched for platelets, leukocytes and fibrin. While platelets are the primary component of PRP, preparations also contain other concentrated cellular components including white blood cells (WBCs) and peripheral stem cells. These components all play a biological role in the healing process and are provided at concentrated levels in PRP. Thus, PRP may help optimize the conditions for healing of bone and soft tissue.

## PRP FAST FACTS

1. PRP is a provisional 3-dimensional matrix made of fibrin that accelerates wound healing
2. It contains a number of growth factors found in human blood centrifuged to reach supra-physiological doses that assist in tissue regeneration
3. It significantly decreases the rate of infection up to 10-fold, especially following molar extractions and prior/during implant placement
4. Patients report less morbidity, swelling and use of analgesics following regeneration with PRF
5. In many clinical indications, PRP may be used alone to replace the high costs associated with bone grafts, connective tissue grafts, and/or barrier membranes
6. Improved patient satisfaction



## BRING YOUR STAFF

### Course Overview

This course walks participants through the art of safely and efficiently drawing blood safely and efficiently with maximal patient care, and its use in preparing platelet-rich plasma (PRP).

### Lecture Review

- Picking the Right Patients: When phlebotomy and PRP are considered beneficial i.e. “the patient checklist”
- Understanding the Basics: Review of phlebotomy and PRP procedures, equipment and usage
- Safety Protocols: Extracting blood safely in proper storage
- Procedural “Cheat” sheets: On PRP extraction and centrifuge usage, as well as blood collection sites and the “Ten Commandments of Phlebotomy”
- Complications and Emergencies: Dealing with complications and challenges and how any associated risks can be mitigated

### Course Outline

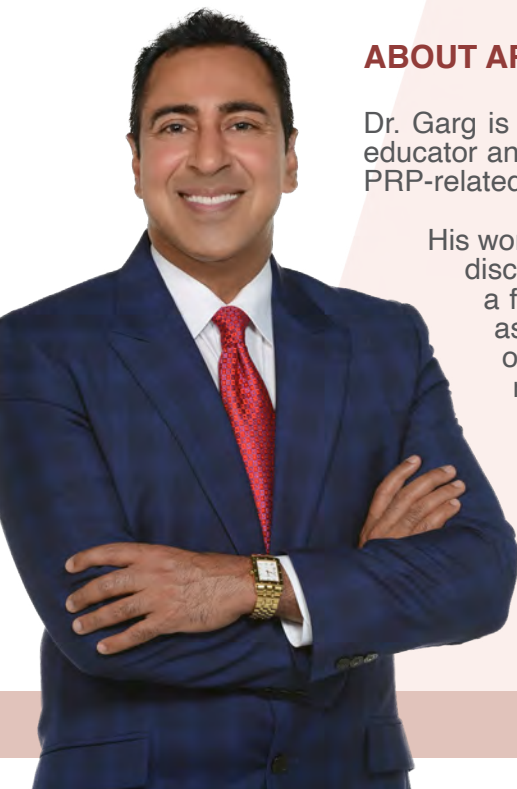
- Video lecture by Dr. Arun Garg.
- Phlebotomy lecture by Cathie Ellyn, RN.
- Practice applying a tourniquet.
- Practice drawing blood on mannequin arm.
- Practice drawing blood on each other.
- Practice for various dental applications.
- Demonstration on spinning the blood and getting the different forms of the PRP.

### Course Objectives

Attendees will learn

- The process of phlebotomy in a dental setting.
- The skills and knowledge necessary to perform phlebotomy while practicing good infection control.
- The anatomic structure and function of body systems related to phlebotomy.
- Accepted procedures for collecting and transporting blood specimens.
- PRP therapy and its growing acceptance in dentistry (including tools and centrifuge equipment).
- How to separate platelet-rich and platelet-poor blood.

***Includes a Hands-on – and Phlebotomy Technique Instruction***



#### ABOUT ARUN K. GARG, DMD

Dr. Garg is a nationally recognized dental lecturer and surgeon, who along with renowned educator and researcher Dr. Robert E. Marx, discovered the benefits of PRP and pioneered PRP-related treatment techniques and research.

His work on the subject of PRP builds upon decades of research going back to the 1965 discovery of bone morphogenetic protein. As a 25-year lecturer, Dr. Garg served as a full-time professor of surgery in the division of oral and maxillofacial surgery and as director of residency training at the University of Miami Leonard M. Miller School of Medicine where he was frequently awarded faculty member of the year by his residents.

Dr. Garg is considered the world's preeminent authority on bone biology, bone harvesting and bone grafting for dental implant surgery and has written and published nine books and over 150 articles. Dr. Garg earned his engineering and dental degrees from the University of Florida and completed his residency training at the University of Miami Jackson Memorial Hospital. He is also the founder of Implant Seminars, a leading dental implant continuing education company that offers a variety of class-based, hands-on, and live patient programs in the United States and abroad.