

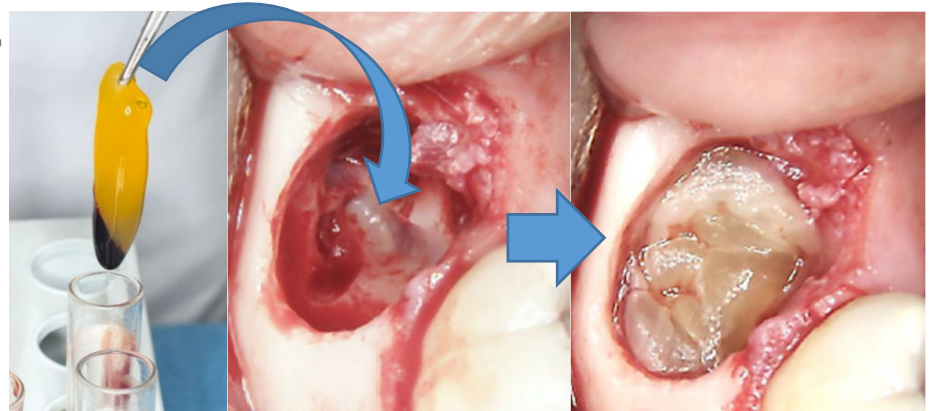
### Platelet Rich Fibrin (PRF)

Platelet rich fibrin (PRF) is an autologous fibrin/platelet concentrate created by centrifugation of a small sample of the patient's blood. The resulting product is a fibrin matrix enmeshed with growth factors (PDGF-1, TGFβ-1, VEGF and ILGF-1), leukocytes, platelets, and cytokines, which has been shown to have significant and favorable effects on both soft tissue and bone healing. Various types of PRF can be synthesized for different surgical applications.



### Active Platelet Rich Fibrin (A-PRF)

A-PRF is composed of a dense fibrin matrix, which is essentially a mature clot. We have been placing A-PRF clots into the extraction sites of lower 3<sup>rd</sup> molars in order to improve our patient's surgical outcomes and recoveries. Numerous studies have shown that placement of PRF into 3<sup>rd</sup> molars sites decreases post-operative pain, swelling, dry sockets, and hastens bone formation in the extraction sites. If the patient is to be sedated, the blood is conveniently drawn from the patient's existing IV access after they are under anesthesia, so there is no discomfort with obtaining the sample.



### Evaluation of Treatment Outcome After Impacted Mandibular Third Molar Surgery With the Use of Autologous Platelet-Rich Fibrin: A Randomized Controlled Clinical Study

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**Results:** Pain ( $P = .017$ ), swelling ( $P = .022$ ), and interincisal distance ( $P = .040$ ) were less in the case group compared with the control group on the first postoperative day. Periodontal pocket depth decreased at 3 months postoperatively in the case ( $P < .001$ ) and control ( $P = .014$ ) groups, and this decrease was statistically significant. Bone density scores at 3 months postoperatively were higher in the case group than in the control group, but this difference was not statistically important.

**Conclusions:** The application of PRF lessens the severity of immediate postoperative sequelae, decreases preoperative pocket depth, and hastens bone formation.

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### Effect of Platelet-Rich Fibrin on Frequency of Alveolar Osteitis Following Mandibular Third Molar Surgery: A Double-Blinded Randomized Clinical Trial

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**Results:** Seventy-eight patients (mean age, 25 yr) underwent 156 impacted third molar surgeries. The overall frequency of AO was 14.74% for all surgeries. The frequency of AO in the PRF group was significantly lower than in the non-PRF group (odds ratio = 0.44;  $P < .05$ ).

**Conclusion:** Based on the results of the present study, PRF application may decrease the risk of AO development after mandibular third molar surgery.

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