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# Using platelet-rich fibrin prepared with titanium tubes in external sinus lift

| Submission date | Recruitment status | [_] Prospectively registered |
|---|---|---|
| 08/05/2025 | No longer recruiting | [_] Protocol |
| **Registration date** | **Overall study status** | [_] Statistical analysis plan |
| 09/05/2025 | Completed | [_] Results |
| **Last Edited** | **Condition category** | [_] Individual participant data |
| 01/06/2026 | Oral Health | [X] Record updated in last year |

**Plain English summary of protocol**

Background and study aims
This study aims to evaluate the effectiveness of a material called T-PRF as a solo filler in sinus lifting procedures. The goal is to compare T-PRF to traditional bone grafts (allografts and xenografts) when placing dental implants either at the same time as the sinus lift or after a delay.

Who can participate?
Participants should be in good oral health, have missing teeth in the upper jaw (premolars or molars), and meet specific bone height and width requirements. They should be aged between 30 and 60 years.

What does the study involve?
Participants will be divided into four groups:
1. Two groups will have a sinus lift and dental implant placed at the same time. One group will use T-PRF, and the other will use traditional bone grafts.
2. Two groups will have a sinus lift first and the dental implant placed after six months. One group will use T-PRF, and the other will use traditional bone grafts.

What are the possible benefits and risks of participating?
The potential benefits include gaining bone and support for dental implants in a safe, easy, and cost-effective way. There are no known risks associated with this technique.

Where is the study run from?
Damascus University (Syria)

When is the study starting and how long is it expected to run for?
September 2023 to February 2025

Who is funding the study?
Damascus University (Syria)

Who is the main contact?
Dr Zakaria Awad, awadzakaria31@gmail.com

# Contact information

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Public, Principal investigator


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Scientific


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# Additional identifiers

# Study information

### Scientific Title
The use of titanium-prepared platelet-rich fibrin in sinus lifting with simultaneous and delayed implantation comparative clinical radiographic study

### Acronym
T-PRF lateral window approach

### Study objectives
Using T-PRF instead of bone grafts in sinus augmentation because of there are disadvantages related with bone grafts like infection,transmitting diseases, high economic cost, immune response, length period of its absorption

### Ethics approval required
Ethics approval required

### Ethics approval(s)
Approved 15/04/2025, Ethical Approval for Biomedical Researches (Damascus University, Damascus, -, Syria; +963 964314346; dl.srd@damascusuniversity.edu.sy), ref: DN-150425-425

### Primary study design
Interventional

### Study design
Interventional randomized controlled trial

### Study type(s)
Treatment

### Health condition(s) or problem(s) studied
Bone gain to dental implants placement

### Interventions
The study includes 4 groups
2 groups sinus lift with simultaneous implant placement, experimental group we use T-PRF as s solo filler, control group we use allograft + xenograft
2 groups sinus lift with delayed implant placement, experimental group we use T-PRF, control group we use allograft + xenograft and implant placement after 6 months of surgery

### Intervention Type
Procedure/Surgery

### Primary outcome(s)
1. Bone gain height is measured using CBCT imaging at baseline and 6 months
2. Bone gain volume is measured using CBCT imaging at baseline and 6 months
3. Implant stability (ISQ) is measured using MegaISQ II (RAF) at immediate implantation, 3 months, and 6 months
4. Bone density (HU) is measured using CBCT imaging at immediate post-surgery and 6 months
5. Complications (membrane perforation, sinusitis) measured using patient records

### Key secondary outcome(s)
There are no secondary outcome measures

### Completion date
22/02/2025

## Eligibility

### Key inclusion criteria
1. Good oral health
2. Have missing teeth in the premolars or molars of maxillary
3. Residual bone height between 4-6 mm for first two groups and less than 4 mm for second two groups

4. Minimum width (buccal-palatal) 6mm
5. Aged between 30-60 years

### Participant type(s)
Patient

### Healthy volunteers allowed
No

### Age group
Adult

### Lower age limit
30 Years

### Upper age limit
60 Years

### Sex
All

### Total final enrolment
0

### Key exclusion criteria
1. Systematic disease(diabetes-hyperthyroidism)
2. Contraindication of surgery
3. Patient refuses treatment
4. Bad oral health

### Date of first enrolment
01/01/2024

### Date of final enrolment
15/02/2025

## Locations

### Countries of recruitment
Syria

### Study participating centre
**Damascus University**
Faculty of Dentistry
Damascus
Syria
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# Sponsor information

**Organisation**
Damascus University

**ROR**
https://ror.org/03m098d13

# Funder(s)

**Funder type**
University/education

**Funder Name**
Damascus University

**Alternative Name(s)**
University of Damascus, , DU

**Funding Body Type**
Government organisation

**Funding Body Subtype**
Universities (academic only)

**Location**
Syria

# Results and Publications

**Individual participant data (IPD) sharing plan**
The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.
awadzakaria31@gmail.com

**IPD sharing plan summary**
Available on request

**Study outputs**

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Other publications | | 29/09/2025 | 01/06/2026 | Yes | No |