

**Submission ID #: 70195**

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**Project Page Link: <https://review.jove.com/account/file-uploader?src=21409523>**

## **Title: A Simplified Protocol for Protecting Palatal Soft Tissue Donor Sites Using an Oral Mucoadhesive Bandage**

### **Authors and Affiliations:**

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## Author Questionnaire

**1.** We have marked your project as author-provided footage, meaning you film the video yourself and provide JoVE with the footage to edit. JoVE will not send the videographer. Please confirm that this is correct.

✓ Correct

**2. Interview statements:** Which interview statement filming option is the most appropriate for your group? **Please select one.**



Interview Statements are read by JoVE's voiceover talent.

**3. Proposed interview filming date:** Please indicate the proposed date that your group will self-film interviews:

When you are ready to submit your video files, please contact our China Location Producer, [Yuan Yue](#).

### Current Protocol Length

Number of Steps: 07

Number of Shots: 10

# Introduction

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**NOTE For VO: Please record the introductory and conclusion statements**

## INTRODUCTION:

**REQUIRED:** Summarize your research focus and the main questions it aims to answer.

- 1.1. This study focuses on protecting the palatal donor site and introduces a novel method to enhance its protection.

- 1.1.1. [2.4.1](#)

~~Describe the research gap or limitation in existing methods and how this protocol addresses them.~~

- 1.2. Traditional methods for donor site management were either expensive or inefficient. This protocol provides long-term wound protection.

- 1.2.1. [2.5.1](#)

## CONCLUSION:

~~How can future studies build on this work? Describe the questions or research directions that can be investigated next.~~

- 1.3. Future studies should generate stronger evidence-based clinical data to evaluate the protocol's efficiency, safety, and long-term outcomes.

- 1.3.1. [Figure 5](#)

**Ethics Title Card**

This research has been approved by the Human Research Ethics Committee at Wuhan University Stomatological Hospital. All participants provided written informed consent.

# Protocol

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**NOTE:** Protocol drafted from available footage

## 2. Palatal Gingival Graft Harvesting and Donor Site Management

**Demonstrator:** NOTE: Not provided

- 2.1. After marking the graft site, make a horizontal incision along the probe mark using a number 15 scalpel blade to a depth of 1.5 to 2.0 millimeters, extending about 1 millimeter beyond the intended graft length [1].
  - 2.1.1. LAB MEDIA: 70195-1.mp4: 00:00 – 00:08
- 2.2. Then, make a vertical incision at the start point of the first horizontal incision to a depth of approximately 1.5 to 2.0 millimeters [1]. Make another vertical incision at the endpoint of the first horizontal incision and extend the incision length approximately 0.5 millimeters beyond the desired gingival graft width [2].
  - 2.2.1. LAB MEDIA: 70195-1.mp4: 00:03-00:13.
  - 2.2.2. LAB MEDIA: 70195-1.mp4: 00:14-00:20
- 2.3. At one end of the first horizontal incision, rotate the number 15 scalpel blade to an angle parallel to the bone surface [1]. Gradually dissect the underlying connective tissue along the initial horizontal incision, advancing the blade approximately 1 millimeter beyond the intended graft width [2].
  - 2.3.1. LAB MEDIA: 70195-1.mp4: 00:48-01:00
  - 2.3.2. LAB MEDIA: 70195-1.mp4: 01:09-01:20
- 2.4. Finally, make an inferior horizontal incision at the palatal donor site parallel to the first horizontal incision to a depth of approximately 1.5 to 2.0 millimeters [1]. Connect the two vertical incisions to free the gingival graft completely [2].
  - 2.4.1. LAB MEDIA: 70195-1.mp4: 01:34-01:48
- 2.5. After achieving initial homeostasis and preparing the wound bed [1], use sterile forceps to place the trimmed collagen sponge into the maxillary palatal donor site. Ensure the sponge is in close contact with the underlying connective tissue [2].
  - 2.5.1. LAB MEDIA: 70195-1.mp4: 01:50-01:53
  - 2.5.2. LAB MEDIA: 70195-1.mp4: 01:55-02:08
- 2.6. Then, position the bandage on the surface of the collagen sponge and center it over the donor site. Ensure a uniform overlap of 1 to 2 millimeters onto the adjacent mucosa around the periphery [1].
  - 2.6.1. LAB MEDIA: 70195-1.mp4: 02:12– 02:23

2.7. Lastly, use a 4-0 monofilament suture to place two horizontal mattress suspension sutures, one parallel and one cross, around the same tooth or adjacent teeth, using the same needle entry and exit points **[1-TXT]**.

2.7.1. LAB MEDIA: 70195-1.mp4: 02:27-03:25 **TXT: After 2 weeks, assess the total pain score and wound healing rate**

# Results

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## 3. Results

3.1. The mean total pain score decreased significantly from 3.71 at 1-day post-operative [1] to 2.24 at 3 days [2], to 0.69 at 7 days [3], and to 0.19 at 14 days [4].

3.1.1. LAB MEDIA: Figure 4. *Video editor: Highlight the bar labeled “1-day”*

3.1.2. LAB MEDIA: Figure 4. *Video editor: Highlight the bar labeled “3-day”*

3.1.3. LAB MEDIA: Figure 4. *Video editor: Highlight the bar labeled “7-day”*

3.1.4. LAB MEDIA: Figure 4. *Video editor: Highlight the bar labeled “14-day”*

3.2. At the 14-day follow-up, the mean wound healing rate was 79.43% approximately, and [1], the mean Oral Health Impact Profile-14 score was 8.18 [2].

3.2.1. LAB MEDIA: Figure 5.

3.2.2. LAB MEDIA: Figure 6.

### 🔊 Gingival

Pronunciation link: <https://www.merriam-webster.com/dictionary/gingival>

IPA: /dʒɪnˈdʒaɪ.vəl/

Phonetic Spelling: jin·JY·vuhl

### 🔊 Scalpel

Pronunciation link: <https://www.merriam-webster.com/dictionary/scalpel>

IPA: /ˈskæl.pəl/, /skælˈpəl/

Phonetic Spelling: skal·puhl, skal·PEL

### 🔊 Incision

Pronunciation link: <https://www.merriam-webster.com/dictionary/incision>

IPA: /ɪnˈsɪʒ.ən/

Phonetic Spelling: in·SIZH·uhn

### 🔊 Palatal

Pronunciation link: <https://www.merriam-webster.com/dictionary/palatal>

IPA: /ˈpæl.ə.təl/

Phonetic Spelling: pal·uh·tuhl

### 🔊 Homeostasis

Pronunciation link: <https://www.merriam-webster.com/dictionary/homeostasis>

IPA: /ˌhoʊ.mi.əʊˈsteɪ.səs/

Phonetic Spelling: hoh·mee·oh·STAY·suhs

❑ Maxillary

Pronunciation link: <https://www.merriam-webster.com/medical/maxillary>

IPA: /'mæk.sə.lər.i/

Phonetic Spelling: mak·suh·lair·ee

❑ Collagen

Pronunciation link: <https://www.merriam-webster.com/dictionary/collagen>

IPA: /'kɑː.lə.dʒən/

Phonetic Spelling: kaa·luh·juhn

❑ Mucosa

Pronunciation link: <https://www.merriam-webster.com/dictionary/mucosa>

IPA: /mju'koʊ.zə/

Phonetic Spelling: myoo·KOH·zuh

❑ Monofilament

Pronunciation link: <https://www.merriam-webster.com/dictionary/monofilament>

IPA: /,mɑː.nə'fɪl.ə.mənt/

Phonetic Spelling: mon·uh·FIL·uh·muhnt

❑ Forceps

Pronunciation link: <https://www.merriam-webster.com/dictionary/forceps>

IPA: /'fɔːr.səps/, /'fɔːr.sɛps/

Phonetic Spelling: FOR·suhps, FOR·seps

❑ Suture

Pronunciation link: <https://www.merriam-webster.com/dictionary/suture>

IPA: /'suː.tʃə/

Phonetic Spelling: soo·cher