

STEP-BY-STEP GUIDE TO TAKING AN IMPRESSION

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TARGET AUDIENCE



Entry-level dental hygienists,
assistants and dentists.



Prior
knowledge of:

Infection Control Procedures
Patient-Operator Positioning
Use of Alginate

LEARNING OBJECTIVES

Upon completion of this unit of instruction, the student will satisfactorily:

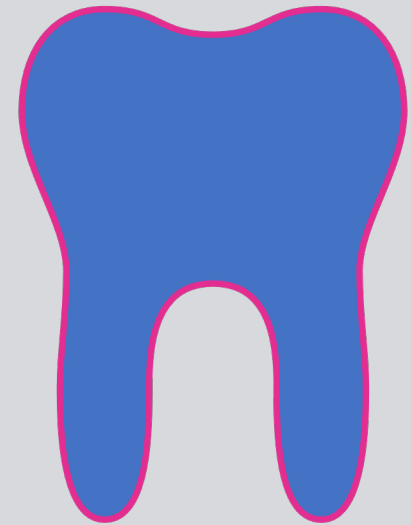
- ❖ Identify the purpose of making impressions.
- ❖ Identify indications and contraindications for dental impressions.
- ❖ Explain why it is necessary for the clinician to wear Personal Protective Equipment (PPE).
- ❖ Explain the rationale for the patient to use mouth rinse prior to procedure.
- ❖ List the considerations to be considered when selecting a tray for an alginate impression of the upper and lower arch.
- ❖ List the requirement for an ideal impression material.
- ❖ Demonstrate proper mixing of the alginate.
- ❖ Describe the proper loading of alginate into a tray.

LEARNING OBJECTIVES (CONTINUED)

- ❖ Demonstrate the procedure of taking an upper and lower alginate impression.
- ❖ Define the setting and working time as related to working with the alginate.
- ❖ Analyze the impressions to determine if they are of quality.
- ❖ Identify common errors when making dental impressions and understand how to avoid them.
- ❖ Explain and demonstrate the purpose of the bite registration.
- ❖ Explain the how to disinfect the impressions, including the adequate disinfectant to be used.
- ❖ Explain the protocol of storing impression trays.

PURPOSE OF IMPRESSIONS

Impressions are used in dentistry to make an exact replica or imprint of the patient's teeth, gingiva, and surrounding tissues in the mouth. These can then be used to make study models, retainers, dentures, whitening trays, night guards, veneers, crowns, etc.



CONTRAINDICATIONS

It is important to identify contraindications for taking an impression. These include:

- Mobility
- Temporary restorations
- Severe gag reflex
- Any allergy to the alginate material or the substances in the alginate

TERMS TO KNOW

Alginate: An elastic and irreversible hydrocolloid impression material.

Centric Relation/Occlusion: Describes your lower jaw's position when all your teeth come together when you take a bite.

Disinfectant: To disinfect the impression, rinse the trays and spray with disinfectant, wait for recommended contact time and rinse. Pour immediately or place in damp paper towel to keep moist and pour within 30 minutes.

Homogenous: A homogenous mixture is a mixture in which the composition is uniform through the mixture. All dissolved material is present in the same amount throughout the solution.

Occlusion: The relationship between the maxillary and mandibular teeth when they approach each other, as occurs during chewing or at rest.

Setting Time: Impression materials should be fluid enough when inserted into patient's mouth to get the detail of soft and hard oral tissue, so it's necessary to have a low viscosity. Alginate *ideal* setting time total is below 7 minutes and influenced by chemical reaction.

Working Time: Alginate will have a ***working time*** of 8 minutes and a cure time of 10 minutes. Warmer water will cause the material to cure faster (less working time). Colder water will give a longer working time and a slower cure time.

ARMAMENTARIUM

The following supplies are needed to take alginate impressions:

Basic Room set up (ex. Barriers, tray, patient napkin, etc.)

Mouth rinse

Room temperature water

Alginate powder

Water measuring cup

Mixing bowl

Spatula

Maxillary and Mandibular impression trays

Beading rope wax

Bite registration material

Disinfectant

Paper Towels

Plastic bag and Marker (for identification purposes)

PPE for clinician

Cup

Spatula

Alginate Powder
& Scoop

ARMAMENTARIUM

Mixing Bowl

Mandibular Tray

Maxillary Tray



The image features a decorative background with several colorful speech bubbles in shades of orange, green, and teal. A large, solid orange speech bubble is the most prominent, centered at the top. Below the speech bubbles is a wide, horizontal pink banner. On the left side of the banner, there is a dark grey, wavy-edged vertical shape. The text "HOW TO TAKE AN IMPRESSION" is centered on the pink banner in a bold, dark grey, sans-serif font.

HOW TO TAKE AN IMPRESSION

1. PATIENT PREPARATION

1

Sit patient in an upright position.

2

Ask the patient to rinse with mouthwash to reduce the number of microorganisms/bacteria in the oral cavity.

3

Inspect the oral cavity to see if there is any debris that needs to be removed.

4

Place a patient napkin on the patient to avoid getting any alginate material on the patient's clothing.

5

Have the patient remove any piercings or dentures.

6

Examine both maxillary and mandibular arches for sizing purposes.

Trays are available in a variety of sizes: Small, medium, large, extra-large. They are usually numbered. It is vital to start by selecting a tray size that is slightly larger than arch.

Criteria for tray selection includes:

- The trays should extend beyond each of the last molar in the arch to partially covering the maxillary tuberosity and mandibular retromolar pad.
- Trays should cover the full crown of each teeth.
- Trays should feel comfortable and minimize tissue trauma during insertion and removal.
- They should cover the entire area needed in the finished impression.

2. TRAY SELECTION

3. USING BEADING ROPE WAX (IF NECESSARY)

Indication for use:



Rope wax may be used to customize a tray for a patient. Wax may be added to the ends of the border to extend the height or length of the tray.



HOW TO MANAGE A PATIENT WITH A GAG REFLEX

Explain

- Explain the procedure to the patient

Seat

- Seat the patient upright

Take

- Take mandibular impressions first

Remind

- Remind the patient to breathe through their nose

Speed

- Warmer water can speed the setting process of the alginate.

4. MIXING TECHNIQUE

Before mixing, make sure to read the manufacturer's instructions.

- Fluff the alginate powder.
- Pour the powder into the bowl.
- Add one full cup of warm water to the mixture.
 - • The higher the water temperature the faster the impression material will set up. Lower water temperature allows for more working time.
- Use a spatula to mix. Mixing time is approximately one minute. Use the sides of the bowl to create a smooth, **homogenous** mixture.

