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INTRODUCTION:

Congratulations; welcome to the Celara Denture System! Celara is a comprehensive solution to denture fabrication. Celara will increase efficiency, predictability, and patient satisfaction. The Celara System was developed in 1997 to help dental professionals to successfully treat the expanding population of denture patients. A recent Harvard University study estimated that the US edentulous denture population will increase by up to 20% by the year 2020.

Traditional denture techniques are lengthy, cumbersome and often lead to unpredictable results. In addition, over the last several years, denture training is being de-emphasized in dental schools. The bottom line is that fewer dentists would like to treat denture cases, while the demand for denture treatment is increasing.

The Celara Denture System started with replacing a patient’s existing denture and has evolved into many other applications; such as: New Dentures, Spare Dentures, and Implant Retained Dentures. Other applications are under development. The Celara Denture System is your solution to your removable cases.
CHAPTER 1: REPLACING A PATIENT’S EXISTING DENTURE.

“WHY START FROM SCRATCH?”

It is accepted practice that patients should have their complete dentures replaced every 5-7 years to compensate for shrinkage of the ridges and the wear of the teeth. Making a new denture for existing denture wearers can be one of the most challenging procedures dentists can perform. Why? Patients often have trouble adapting and adjusting to the new denture – especially when the dentist starts from scratch – when few, if any, attributes of the old dentures can be adequately communicated to the laboratory. The Celara Denture Technique enables dentists to routinely fabricate dentures in three simple appointments with better patient satisfaction and fewer adjustments. This is all accomplished with precise communication between the patient, the doctor, and the dental laboratory.

CELARA REFILL KIT

- **Rapid Repair Tabs** - to extend the borders or repair broken flanges
- **Celara Disposable Container** - for boxing the impression
- **Celara Extended Pour Alginate**
- **Celara Quick Setting Stone with Water Measure**
- **Celara Laboratory Bag**

Everything is conveniently packaged and pre-measured - (FIG. 1-1).

Figure 1-1
MAKING “EXCELLENT” FINAL IMPRESSIONS:

THE EXISTING DENTURE MAKES AN EXCELLENT TRAY FOR THE FINAL IMPRESSION:

- It has borders which the patient is accustomed to.
- The occlusion can help orient the tray back into the mouth correctly.
- The old denture usually fits loosely, creating an even thickness of impression material.

With today’s modern materials, it is not necessary to grind out undercuts or drill relief holes through the old denture. With the Celara Denture Technique, doctors can use their preferred impression material and techniques. **The following two-stage impression technique is strongly recommended:**

TWO STAGE IMPRESSION TECHNIQUE- STAGE 1:

1. Scrub the denture with pumice and water.
2. Evaluate the border extensions – if the critical areas are short, they can be extended using the Celara Rapid Repair Tabs. It is not recommended to use the Rapid RepaiTabs over the entire denture borders as is typically done with a custom tray. They are used only on the borders which are critical to the fit – the posterior tuberosity areas and posterior border of the maxillary denture and retromolar pad and buccal shelf of the mandibular denture. (FIG 2-2A). It is best to maintain the other borders of the denture as these borders are not critical to the fit, and they are what the patient is used to. This is one of the strongest rationales for using the denture as a custom tray. If the flange is broken, it is easily repaired using Celara Rapid Repair Tabs. (FIG 2-2B). Rapid Repaid Tabs are not used in every case.
3. Apply appropriate adhesive liberally around the borders only. It is not necessary or recommended, to apply the adhesive around the entire tissue surface of the denture. (FIG 2-3).

It greatly expedites the clean up when adhesive is not applied over the entire tissue surface. Further, in the event an impression is missed, the impression material over the palate or crest of the ridge can easily be cut away with a dull knife, enabling a new impression to be made.

4. Apply heavy body polyvinylsiloxane around the borders of the denture, insert the denture in the mouth and border mold.
When fabricating upper and lower dentures, it is best to make the impressions simultaneously with the teeth lightly in occlusion. Always insert the maxillary denture first, making sure it is completely seated, and do an “open-mouth” border molding technique for the posterior border - picking up the annular notches and posterior tuberosity areas. Simply have the patient open very wide and move the jaw side to side to establish the thickness of the posterior tuberosity areas. With the mandibular denture, you want a “closed mouth” border molding technique; after you insert the denture, have the patient lift his/her tongue to record the sublingual frenulum and sublingual mylohyoid area - floor of the mouth.

Remove the dentures after the impression material sets and carefully trim away all impression material which is on the tissue surfaces, leaving an established border (FIG. 1-4).

Border molding with the heavy body first, accomplishes two things. It creates a seal and makes a loose denture fit, and it lifts the denture off the tissue slightly - approximately ½ mm., which creates relief for the final wash. The heavy body polyvinylsiloxane is ideal for border molding an existing denture as it will not overextend and will roll to the existing borders. This maintains the length and thickness of these borders.

1. Have the patient rinse out with very cold water for 1-2 minutes.
   The cold water will shrink the tissues and reduce inflammation making an impression with the maxillary arch constricted. Often the maxillary arch will expand slightly to compensate for an ill-fitting denture.

2. Dry the ridges.

3. Make the final impression with “extra light” or “light” body wash. (FIG. 1-5). Avoid overfilling the anterior of the maxillary denture with impression material.

4. Always seat the maxillary denture prior to the mandibular denture when making the impressions simultaneously. Completely seat the maxillary denture and have the patient open wide, moving the jaw side to side. Insert the mandibular denture, and have the patient lift the tongue and border mold. Have the patient hold his/her teeth lightly in occlusion while the impression material sets. (FIG. 1-6).
SUGGESTIONS WHEN USING THE DENTURES AS TRAYS FOR FINAL IMPRESSIONS:

SINGLE STAGE IMPRESSION TECHNIQUE:

When using a one-stage impression technique – using a single phase impression material – use a MEDIUM BODY VISCOSITY. Light body can result in too thin a layer of impression material and undercuts can be an issue. Heavy body impression material can compress the tissues resulting in excessive future adjustments.

ADDRESSING UNDERCUTS:

If severe undercuts exist within the ridge of the denture, it is advisable to relieve the denture from the tissue using 3 small pieces of Celara Rapid Repair Tabs – acting as a tripod of tissue stops. (FIG. 1-7). This can be easily accomplished by softening a the tab and placing 3 small pea-sized pieces on the tissue surfaces of the denture in three areas and having the patient bite lightly into occlusion. This technique will lift the denture(s) off the tissue slightly, approximately 1mm. per arch, assuring adequate thickness of impression material to enable the cast to come out of the undercut without breaking – providing the impression is properly boxed. When doing a two-stage impression technique, the heavy body material usually relieves the denture slightly. If severe undercuts exist, the denture base can be relieved with Rapid Repair Tabs prior to border molding.

FUNCTIONAL IMPRESSIONS:

When hyperplasia exists and it is necessary to heal the tissues prior to making the new denture, a tissue conditioning treatment regime can be used. When a functional impression technique is used as the final impression, and it becomes hard after being worn for several days, it is recommended a final wash of polyvinylsiloxane be made over the functional impression as a final wash. These functional impression materials can slump, resulting in an inaccurate impression, and the functional impressions can become hard and non-resilient, resulting in possibly fracturing the cast upon removal.

Occasionally, the hyperplasia occurs from the occlusion and must be treated after the new dentures are fabricated.
EVALUATING “RECORDS” FROM IMPRESSIONS:

After the impressions are carefully removed from the mouth and all excess impression material removed from the facial surfaces of the dentures, the impressions are placed back into the mouth and all aspects of the records are observed such as midline, vertical dimension, tooth positions, planes of occlusion, esthetics, etc.

WHEN SIGNIFICANT CHANGES ARE NECESSARY – a wax pattern can be made in the dental office or in the dental laboratory. A wax pattern is made and used similarly to a wax rim obtaining proper vertical, tooth positions, planes of occlusion, and centric relations. When the wax pattern(s) is fabricated in the dental office, the impression(s) is made, the wax pattern(s) is fabricated and all patient records are obtained usually on the same sixty to ninety minute appointment.

WHEN MINOR CHANGES ARE NECESSARY – a wax pattern can be fabricated in the dental office and used to obtain and verify all the records. Or alternatively, as is most commonly done, the impression is boxed and a cast poured in the dental office. The containers are then sent to the laboratory in a tightly sealed bag, along with the prescription, a bite taken from the impressions in the mouth, and the desired mold and shade of the teeth. The laboratory can inject the pattern over a stabilized base and provide a partial set-up (with the anterior teeth) or a complete set-up for the try-in on the second appointment. (FIG. 1-8A and 1-8B).

Partial Set-Up

![Partial Set-Up Image](FIGURE 1-8A)

Complete Set-Up

![Complete Set-Up Image](FIGURE 1-8B)
TROUBLE SHOOTING USING EXISTING DENTURE AS TRAY FOR FINAL IMPRESSION:

• Avoid using Rapid Repair Tabs over entire borders of denture
  ⇒ This is usually not necessary, and you will likely throw off the occlusion.

• Avoid using only light body or extra-light body impression material in a single stage technique without relieving denture off tissues with Rapid Repair Tabs - 3 small pea-sized pieces, softened, acting as a tripod similar to tissue stops in a custom tray
  ⇒ This will result in undercut issues! An extremely thin wash of impression will result without relieving the denture

• Avoid using only heavy body impression material in a single stage technique
  ⇒ This will result in excessive compression of the tissues and excessive adjustments

• Avoid using alginate as final impression inside denture
  ⇒ This material is too flimsy and the impression will distort when re-inserted into the mouth

Always use appropriate adhesive liberally around the borders in a two-stage impression

IF IMPRESSION IS MISSED -

> Cut away tissue surface, leaving the borders and remake impression. It takes the same time as simply adding to missed area. This is one reason not to add adhesive over entire tissue surface of denture in a two-stage impression.

BOXING IMPRESSIONS AND POURING CASTS:

Typically the dental assistant performs the boxing of impressions and pouring the cast. The Celara Refill Kit has everything necessary for the assistant, pre-measured and packaged. The procedure to box the impression and pour the cast is very simple and easy to perform, however, the assistant should practice several times prior to doing an actual case.

Supplies Needed:
♦ 2 Mixing Bowls
♦ 2 Spatulas
♦ 1 Dull Knife
♦ Celara Refill Kit
♦ 1 Rubber band

To box the impression and pour the cast, the assistant will need the Celara container, which consists of an upper and lower half. The lower half has an open top and a closed bottom, while the upper half has an open bottom and top. (FIG. 1-9A and 1-9B).
BOXING THE IMPRESSION:

Empty the entire package of the pre-measured Celara alginate into a clean mixing bowl and use the lower half of the container full of water for the measure of water. It is important that you use the amount of alginate in the package with a full lower container of water. This consistency produces a loose mix of alginate. Too thick a mix will result in the alginate rolling at the denture borders exposing too much of the denture flange. This can result in the denture locking on the cast. Too much water or too little alginate will result in too thin a mix, and can result in the denture sinking into the alginate. The proper mix of alginate results in a thin mix which may be lumpy and may contain bubbles having the consistency of oatmeal. It is okay to have a few lumps and a few bubbles. We are using the alginate mainly to box the impression – alginate is just as accurate an impression material if mixed thin or thick.

Pour the thin mix of alginate in the lower half of the container to within approximately ¼" from the top, or 7/8 full. (FIG. 1-10). This leaves enough room for the displacement of the denture when submerged in the alginate. Cover the palate, occlusal, and incisal edges of the teeth with the alginate and immerse the denture in the lower container filled with alginate teeth side down so that 1-2 mm. of the borders are above the alginate to prevent the denture from locking on the cast. The alginate may run onto the posterior surface of the impression and cause the anterior flanges of the denture to rise above 1-2 mm. If this occurs, you can tease the anterior border down in the alginate by placing a pencil across the impression. (FIG. 1-11A).

The alginate may run onto the posterior surface of the impression and cause the anterior flanges of the denture to rise above 1-2 mm. If this occurs, you can tease the anterior border down in the alginate by placing a pencil across the impression. (FIG. 1-11B).

After the alginate sets - approximately 2 minutes - ALL THE ALGINATE MUST BE REMOVED FROM THE IMPRESSED SURFACES OF THE IMPRESSION. It is extremely critical that all the impressed surfaces of the impression be exposed by removing all alginate which is over the impression. The alginate can be easily removed by trimming it away with a dull knife. (FIG. 1-12). It is recommended that the alginate at the heels of the impression be removed by cutting it away on a bevel. This places excess stone behind the heel of the cast - strengthening the heels of the cast which is where most casts fracture.
When boxing the mandibular impression, the posterior heals of the impression will be immersed in the alginate and all the alginate covering these areas of the impression must be removed prior to pouring a cast. This is easily accomplished cutting the alginate away with a dull knife. When the alginate covers the posterior heals of the mandibular impression, the alginate can only be removed to the edge of the impression and therefore 1-2 mm. of these borders will not be above the alginate. (FIG. 1-13).

If any of the alginate ran out over the rim of the container, it is easily removed with a dull knife. This assures the upper and lower containers have a positive seat.

**POURING THE CAST:**

Place the upper half of the container over the lower half - making sure the serrated top is punched out. The upper and lower halves will seat, but will not snap or lock. Make sure the upper and lower ledges are seated correctly.

Empty a complete package of Celara stone in a clean mixing bowl and add a full measuring cup (provided) of water. The proper amount of water for stone powder is 43 ml. Too much water which produces a thin, runny mix, can cause the stone to over expand - possibly resulting in an ill-fitting denture. If a vibrator is used to pour the stone cast the containers must be secured tightly with a rubber band to prevent the stone from running out between the containers. (FIG. 1-14).

Cover the entire surface of the impression with stone, placing the stone in the posterior of the impression and forcing the stone forward thus preventing trapping air. It will be noted that the stone will not completely fill the top half of the container.

The Celara stone will completely set in 5-7 minutes and is formulated to have the ideal expansion and hardness for dentures. It is not desirable to have a cast which is too hard. The acrylic of the denture can fracture upon deflasking if the cast is too hard. It is desirable to have a very slight expansion of the cast - enabling a thin layer of moisture between the denture and the ridge.
TROUBLE SHOOTING BOXING IMPRESSIONS AND POURING CAST:

- **Avoid adding the alginate powder to water.**
  - This is too difficult to mix. Add the water to the alginate powder.

- **Avoid leaving alginate powder in the bag when dispensing into mixing bowl.**
  - This can lead to too thin a mix.

- **Avoid not measuring the water.**
  - To use alginate to box an impression, you want a thinner mix than is typically done for using alginate to make an impression. With the Celara Refill Kit, everything is pre-measured. **USE THE LOWER CONTAINER FULL OF WATER AS THE WATER MEASURE FOR A FULL PACKAGE OF ALGINATE.** This will produce the correct consistency for boxing the impression.

- **Avoid filling the lower container full before immersing the denture.**
  - This will lead to excess alginate running over the ledge of the lower container.

- **Avoid trapping air.**
  - Smear alginate over the palate and teeth prior to immersing in the alginate. Immerse the maxillary denture by rotating it from the anterior to the posterior.

- **Avoid leaving any alginate over the impressed surfaces of the impression.**
  - This will affect the cast and ADVERSELY AFFECT THE FIT OF THE DENTURE, especially alginate in the posterior of the impression.

- **Avoid mixing the stone too thin.**
  - This can result in the stone over-expanding and the cast being too soft.

OPENING CONTAINER:

After the stone completely sets (5-7 minutes), carefully open the container, using a laboratory knife. Typically the denture will remain on the stone cast in the upper half of the container and an alginate impression of the external surface of the denture will be in the lower half of the container. Occasionally, the denture will come off the cast and be in the alginate – this is not a problem. Simply remove the denture from the alginate.

Rarely the alginate will come out of the lower container. If this occurs, simply separate the alginate from the stone and place the alginate back into the lower container. This usually occurs when the lower container is not filled adequately with alginate, or excess water is on the bottom of the lower container prior to filling it with alginate.

REMOVING DENTURE FROM CAST:

Remove the denture carefully from the cast. This is easily done since the denture was properly boxed prior to pouring the cast. Use a laboratory knife along the sides of the posterior edges and carefully tease the denture impression off the cast. Avoid prying with the knife on the heels of the maxillary and mandibular denture, as often these posterior areas are worn thin and may easily fracture.

CLEANING THE PATIENT’S DENTURE:

Remove all impression material and adhesive from the patient’s denture, using Orange Solvent, and give the denture back to the patient. With the Celara Denture Technique, the patient is never without their denture. The whole procedure, when mastered, should routinely take approximately 30 to 45 minutes, or 1 hour to 1 - 1/2 hours when fabricating the wax pattern in the dental office.
FABRICATING THE WAX PATTERN IN THE DENTAL OFFICE:

It is best to have the ability to fabricate the wax pattern in the dental office to modify or verify the wax pattern and take all the records on the same appointment as the impression. This is easily accomplished by having a wax-injector. (FIG. 1-15).

The wax injector enables the wax pattern to accurately represent what was seen in the mouth after impressions, in that the injected wax patterns reproduce the dentures with impressions with little or no flash which can lead to errors.

SPRUING THE ALGINATE LOWER CONTAINER

ENTRANCE SPRUE HOLE:

Using a #8 round bur or a thin tapered laboratory acrylic bur, approximately 1/8” in diameter, drill a hole through the anterior of the container entering the void created by the denture. The sprue hole should be started approximately in the middle of the container, not near the container’s ledge, and enter the void above the ANTERIOR TEETH IN THE ANTERIOR FLANGE. (FIG. 1-16A, 1-16B).

Do not have the sprue hole enter the midline of the anterior teeth as the anterior teeth need to be accurately represented in the wax pattern. The hole can also be made using a cork boring tool or small 3/16” thin straw, once a small hole is cut through the container. (FIG. 1-17).

EXIT SPRUE HOLE(S):

The exit sprue for the maxillary arch can be made similarly as the entrance sprue and should exit the distal end of the impression void. The exit hole should be directly opposite the entrance hole for the maxillary arch.

In the mandibular arch, typically, there is one entrance sprue hole and two exit holes – one at each distal end of the mandibular denture, exiting the distal retromolar area. (FIG. 1-18).
INJECTING THE WAX PATTERN:

Follow the instructions for using the wax injector and melting the wax. Basically, the wax can be melted quickly at the high position, and the proper temperature to inject is when the indicator light goes off when turned counter clockwise and initially “on” when turned clockwise. This “on” position is the desired temperature to inject the wax. (It is wise to mark the injection setting on your injector for future reference)

When using the wax injector for the first time, melt 5 to 6 Celara wax rods in the injector, and bleed the air out of the pump by pumping 4 or 5 times until wax begins to come out. Going forward, add 1 to 2 rods of wax per arch being fabricated.

Lubricate the stone cast with Celara model release agent. This separating agent can be liberally applied to the cast without causing a problem – contrary to Vaseline, which must be very carefully applied. Excess Vaseline on the cast can stay through boil-out and processing and even be in the acrylic. The Celara separating agent will soak into the stone and will not cause a problem. DO NOT FORGET TO LUBRICATE THE STONE CAST. The wax will stick to the stone if separating agent is not used.

Secure the container tightly together with a rubber band. Test the wax injector – PUMP SLOWLY – to make sure the wax is flowing. Prior to injecting the wax, make sure the alginate is dry and free of excess moisture. The alginate can be carefully dried with air immediately prior to injecting. Excessive moisture, especially in the anterior teeth, will cause the incisal edges to be misrepresented in the wax pattern. Carefully place the inlet sprue hole over the inlet of the wax injector and pump very slowly until the wax extrudes through the exit sprue.

DO NOT REMOVE THE CONTAINER IMMEDIATELY. Keep the container on the inlet of the injector long enough for the wax to solidify in the inlet sprue hole. This will prevent the wax from running out when the container is lifted off. (FIG. 1-19). If the wax runs out, this will create voids in the “distal” end of the wax pattern.

Immediately place the container in a cold water bath to allow the wax to adequately harden – approximately 5 minutes. After the wax hardens, open the container and trim the wax pattern on the cast.

Occasionally, the wax pattern will come off the cast and it will be in the alginate. If this occurs, cut through the sprue before removing the wax from the alginate.

FIGURE 1-19

The Celara wax pattern is a replica of the denture over the cast. The wax is a special formulation which is rigid enough to obtain records in the mouth without distorting. If the wax pattern breaks or distorts upon removal from the cast, it usually means there are significant undercuts in the cast. If the wax pattern breaks or distorts, check the cast for undercuts and block them out with soft utility wax and re-inject a new wax pattern.
The wax pattern is ideal for obtaining records, as it was injected directly over the cast, and therefore will fit. (FIG. 1-20). If the dentist desires, a post dam can be cut into the cast prior to injecting. The wax pattern is also familiar and comfortable for the patient and provides a reference to communicate to the laboratory, from which any and all changes are made predictably. The Celara wax pattern is handled just like a wax rim. Base plate wax can be added to it, or it can be marked and trimmed similar to a traditional rim.

**SENDING THE CELARA CONTAINER WITH WAX RIM TO THE LABORATORY:**

Make sure to seal the wax pattern to the cast when sending the Celara case to the laboratory. Also include the alginate container in a tightly sealed bag. This gives the laboratory the option to re-inject if they elect.

**TROUBLE SHOOTING - FABRICATING THE WAX PATTERN:**

- **Avoid injecting too cool a temperature.**
  - This will result in a wavy wax pattern.
- **Avoid injecting the wax too hot.**
  - This can result in excess shrinkage of the wax pattern.
- **Avoid having the sprue hole too large.**
  - It will not make a seal in the inlet of the injector and the pattern may not fill with wax.
- **Avoid having the inlet sprue hole too close to the ledge of the container.**
  - This will make it very difficult to place the container on the inlet of the wax injector.
- **Avoid having the inlet sprue into the anterior teeth.**
  - The inlet sprue should enter the void above the anterior teeth in the anterior flange of the denture. The anterior teeth and midline must be accurately represented in the wax-pattern.
- **Avoid injecting the alginate wet. Dry the alginate before injecting.**
  - The incisal edges of the anterior teeth will not be represented accurately if excessive moisture is in the alginate.
- **Avoid pumping the wax injector too vigorously - Pump very slowly and easily.**
  - This can shoot the wax out the exit sprue, which will make a mess and possibly cause injury.
- **Avoid removing the container from the inlet sprue of the container too quickly.**
  - Allow the wax to harden in the sprue before lifting the container off the inlet of the wax injector. This prevents the wax from running out and creating a void in the pattern. The resulting void will be in the distal of the pattern.
- **Allow the wax pattern to adequately harden before removing it from the cast and trimming to prevent distortion of the wax pattern.**
SENDING THE CONTAINER TO THE LABORATORY TO HAVE THE LABORATORY INJECT THE WAX PATTERN:

In the event that only minor changes are necessary, the Celara Denture System enables the dentist to send the container with the cast and the alginate to the laboratory for fabrication of the wax pattern.

A small wet towel must be placed between the alginate and stone halves of the containers. The containers must be secured together and placed in a tightly sealed bag. The Celara alginate is specially formulated so that it will not shrink or distort for up to 96 hours if these instructions are followed correctly.

You can request the laboratory to provide back a Celara Wax Pattern over a stabilized hard base, to be used as a typical base plate and rim (FIG 1-21). Alternatively, you can request a complete set-up for try-in over a stabilized hard base, providing the lab receives a bite from the impressions in the mouth along with the mold and shade of the teeth (FIG. 1-22). A partial set-up with anterior teeth only can also be requested from the laboratory (FIG 1-23).

It is recommended that all try-in’s coming from the laboratory be set over a stabilized hard base.

NOTES:
CHAPTER 2: LABORATORY LEARNING GUIDE: REPLACING A PATIENT’S EXISTING DENTURE

The Celara Denture Technique helps doctors and laboratories with one of the most difficult and frustrating dental procedures - fabricating new dentures for patients wearing dentures. The Celara Denture Technique enables dentures to be replaced with better patient satisfaction, more predictability, and with increased profitability for the doctor and laboratory. This is accomplished with better, more precise communication between the patient, the doctor and the laboratory.

The technique is based on the premise of “WHY START FROM SCRATCH” when replacing a patient's existing denture! Traditionally, the only way to communicate the attributes of an existing denture was through a study cast of that denture, which can only be used to artistically evaluate. The laboratory could not mount the study model or set the teeth into it. The laboratory could only artistically use the study cast to evaluate and look at.

The Celara Denture Technique gives the laboratory a 3-D wax pattern of the old denture made on the master cast, using the denture as a custom tray. (FIG. 2-1), thus the patient never gives up his/her denture, further there is less stress in the laboratory compared to techniques in which the denture is sent to the laboratory - such as a Pour and Mount Technique.

RECEIVING AND HANDLING CELARA CASES IN THE LABORATORY

Doctors using the Celara Denture System will send the Celara containers to the laboratory in a tightly sealed bag. (FIG 2-2). The containers should be secured tightly together with a rubber band. Between the containers is a small wet paper towel or 2 x 2 gauze to prevent shrinkage of the alginate. (FIG. 2-3). When handled correctly, Celara alginate provides 96 hours of stability. However, it is important that immediately following disinfection procedures, the alginate half of the container is placed back in the sealed bag while a stabilized hard base is being fabricated. Celara alginate will not distort in a sealed bag, but will distort if left out unsealed.
FABRICATING THE WAX PATTERN IN THE LABORATORY - OVER A STABILIZED HARD BASE

Carefully remove the stone cast, so as not to harm the container. This is easily accomplished by pushing out the cast from its base. The containers are designed slightly tapered to allow the cast to be easily removed and reinserted.

NOTE: the alginate container remains in the sealed bag while the hard, stabilized base is being made.

It is very important that the stone cast removed from the container is NOT TRIMMED at this time. (FIG. 2-4).

If undercuts exist, block them out with soft wax before making the base.

FABRICATING THE STABILIZED HARD BASE

The hard stabilized base can be made using any laboratory preferred technique: An Omni Vac suck down base, a Triad light cure base, or a sprinkled acrylic base. The bases must be made “thin” to assure complete closure of the containers. The cast from the container, untrimmed, will fit under an Omni Vac machine. When making a suck down base, do not be concerned that the borders are not registered, as the base is made intentionally short. The bases are intentionally cut short, so that when the wax pattern is injected over the base, the borders will be in wax. (FIG 2-5).

Seat the hard base on the cast. The cast is placed back into the container and the hard base is secured to the cast with wax. (FIG 2-6).

SPRUING THE ALGINATE CONTAINER

Remove the alginate container from the sealed bag. Make a small hole approximately 1/8” in diameter through the alginate container using a lab drill or cork boring tool. (FIG. 2-7).
The maxillary container should have an entrance hole in the anterior and an exit hole directly opposite in the posterior. (FIG. 2-8).

The mandibular container should have one entrance hole in the anterior and two exit holes, one each at the distal retromolar pad areas of the container. (FIG. 2-9).

Avoid having the entrance holes close to the container’s ledge. The hole should be in the middle of the container and enter the void in the alginate created by the denture, and not in the land area of the stone. The hole should enter in the anterior flange of the denture, not in the impression of the anterior teeth, especially in the midline, maintaining an accurate representation of the anterior teeth in the wax pattern. (FIG. 2-10).

Clean the sprue holes out with air and carefully dry the alginate. If the alginate is excessively wet, or water is over the impression of the teeth, the result will be the wax pattern not representing the incisal edges of the teeth accurately.

**INSTRUCTIONS FOR THE WAX-INJECTOR**

When using the wax injector for the first time, melt 5 to 6 Celara wax rods in the injector, and bleed the air out of the pump by pumping 4 or 5 times until wax begins to come out. Going forward, add 1 to 2 rods of wax per arch being fabricated.

The wax can be melted rapidly by turning the thermostat to “high.” The wax will melt in approximately 10 min. The proper temperature to inject the wax is where the thermostat is backed off - counterclockwise from high - until the indicator light is off and then clockwise where the indicator light initially comes on. This initial “on” position in the proper temperature to inject the wax. (It is wise to mark this injection location for future reference) Allow 5-10 minutes to allow the wax to reach this temperature before injecting. Injecting the wax at too high a temperature results in excessive shrinkage of the pattern upon solidification. Injecting the wax at too cool a temperature results in a wavy or wrinkled pattern.
INJECTING THE WAX PATTERN

All land areas of the stone cast must be thoroughly lubricated with Celara Model Release Agent. Celara Model Release Agent can be liberally applied without causing a problem, contrary to Vaseline, which must be very carefully and sparingly applied. Excessive Vaseline on the cast can stay on the cast through boil-out and possibly be in the acrylic. If a stabilized hard base is on the cast, lubricate ALL STONE AREAS EXPOSED.

The containers are put together tightly with rubber bands. Test the wax injector by pumping the wax slowly. The injector works similarly to an Artesian Well - the wax should flow out smoothly. The container is held vertically, and the injector tip is carefully inserted into the inlet sprue hole. (FIG. 2-11).

Create a secure seal between the container and the inlet sprue, but do not press too firmly, as this will cause distortion of the anterior wax pattern.

Pump the wax slowly filling the container with molten wax until the wax extrudes from the exit sprue(s). If two exit holes are used, place one finger over the exit hole where the wax extrudes first, and continue to pump slowly, forcing the wax through the second hole.

**Do not immediately remove the container from the injector tip.** Hold it in place for 20-30 seconds, allowing the wax to harden in the inlet sprue. (FIG. 2-12). This will prevent the wax from running out when the container is lifted. If the container is lifted off the injector tip too soon, the molten wax will run out, creating voids in the distal of the wax pattern.

Lift the container off the injector and place it directly in a cold water bath, allowing the wax to harden. Leave the container in the cold water bath for 3-5 minutes. (FIG 2-13).

Allow the wax to harden adequately. Removing the wax prematurely results in voids and distortions in the wax pattern.

Carefully separate the containers, and gently remove the wax pattern from the cast. If the wax pattern breaks or distorts, it usually indicates undercuts in the cast. If this occurs, simply block out the undercut with soft utility wax, or preferred technique, and re-inject. Occasionally, the wax pattern will remain in the alginate. If this occurs, cut through the sprues prior to carefully removing the pattern from the alginate.
As indicated on the doctor's prescription, the injected wax pattern over a hard base is either:

1. **SENT BACK TO THE DENTAL OFFICE AS A MODIFIED BASE-PLATE AND RIM.** The wax pattern provides the doctor a reference starting place to work from. The wax pattern handles exactly the same as any base plate and rim. Base plate wax can be added or the pattern can be trimmed and recontoured. (FIG. 2-14).

2. **SENT BACK TO THE DENTAL OFFICE WITH A PARTIAL SET-UP ANTERIOR TEETH ONLY.** (FIG. 2-15).

3. **Used with a bite provided - from the impressions in the mouth - to mount the casts and PROVIDE A COMPLETE SET-UP FOR THE 2ND APPOINTMENT.** The wax-pattern becomes a reference for the laboratory so that if minor changes are necessary, the laboratory knows where the incisal and facial surfaces of the teeth are; so that if the prescription says “move the incisal edge 2 mm. longer, the laboratory has a reference. (FIG. 2-16).

**Wax Pattern as Rim**

**Partial Set-Up**

**Reference for Changes**

**FIGURE 2-14**

**FIGURE 2-15**

**FIGURE 2-16**

**TROUBLE SHOOTING FABRICATING WAX PATTERN IN THE LABORATORY - OVER A STABILIZED HARD BASE**

- **Avoid making the hard base too close to the peripheries.**
  
  ⇒ You want the base short so that the peripheries will inject in wax, allowing the record base to fit adequately and be comfortable for the patient.

- **Avoid making the inlet sprue too close to the container’s ledge.**
  
  ⇒ It will become difficult to place the container on the inlet of the wax injector.

- **Avoid the inlet sprue coming into the anterior teeth.**
  
  ⇒ The sprue should enter the flange above the anterior teeth.

- **Avoid the exit sprue coming out short of the most distal aspect.**
  
  ⇒ This can result in voids in the distal of the wax pattern.

- **Avoid injecting the wax too hot.**
  
  ⇒ Excessive shrinkage of the pattern can occur.

- **Avoid injecting the wax too cool.**
  
  ⇒ Wrinkles and waves in the pattern will occur.

- **Avoid lifting the container off the inlet of the wax injector too soon.**
  
  ⇒ Leave the container on the inlet sprue for at least 15 to 20 seconds to allow the wax inside the sprue to solidify, preventing the wax from running out when the container is lifted off. Lifting the container off the inlet too soon creates voids in the distal areas of the wax pattern.

- **Avoid removing the wax pattern from the cast too soon.**
  
  ⇒ Adequately allow the wax to harden in the cold water bath before carefully removing the wax pattern from the cast. If the wax pattern breaks or distorts, block out undercuts on the cast and re-inject.
Doctors may have a wax-injector in their office. This enables the doctor to obtain, modify and verify all the patient records along with centric jaw relations on the first appointment.

When the wax pattern(s) come into the laboratory, they should be sealed to the cast and in the container. The alginate half of the container must come to the laboratory in a sealed bag. (FIG. 2-17).

This gives the laboratory the option to re-inject the wax pattern over a hard base, if desirable.

**WHEN SIGNIFICANT CHANGES WERE MADE TO THE WAX-PATTERNS:**

The laboratory will trim and mount the casts using the wax patterns and cross-set the teeth over a stabilized hard base. (FIG. 2-18). A wax pattern on one arch against a set-up over a hard base on the opposite arch.

**WHEN NO OR MINOR CHANGES WERE MADE TO THE WAX-PATTERNS:**

The laboratory can re-inject over a hard base and set the teeth directly into the wax pattern, or cross-set the teeth as previously described.

**WHEN THE DENTURES ARE TO BE DELIVERED ON THE 2\textsuperscript{ND} APPOINTMENT:**

The office must have a wax injector and verify all the records using the wax-patterns.

The laboratory can set the teeth directly into the wax-pattern and process the dentures.

**MOUNTING THE CAST AND SETTING THE TEETH**

The cast can easily be removed from the container and re-inserted. The cast is trimmed and mounted on an articulator. A bite should be provided from the impressions in the mouth.

It is most desirable to set the teeth directly into the wax patterns, ideally over a stabilized hard base, as many attributes of the old denture can be maintained, i.e. the contour of the palate, thickness of the flanges, positions of the teeth, height of the gingival margins, etc.

The wax-patterns provide the laboratory a reference-point from which slight changes can be made. The prescription can say “move the anterior teeth facially 2 mm. and lengthen the incisal edge 1 mm.” From the wax pattern, the laboratory can see exactly where the teeth need to be placed. (FIG. 2-19)
The laboratory technician may prefer to add their preferred base plate wax over the Celara wax during set-up for ease of carving. The Celara wax is formulated very hard and may be difficult to carve.

**PROCESSING**

The Celara cases are processed using your preferred technique: Trial Packing, Injecting, Pouring, Light Curing, or Microwave.

**FINISHING**

A significant advantage of setting the teeth directly into the wax pattern is that minimal finishing will be required, thus saving valuable laboratory time and possible distortion of the denture.

**Helpful Laboratory Tip:** After injecting the wax, pour a stone cast as a reference. This study model is useful when the laboratory sets the teeth directly into the injected pattern.
CHAPTER 3: IMPLANT RETAINED DENTURES

Implant retained dentures, especially the mandibular denture, are one of the most beneficial and successful procedures dentists offer their edentulous patients. Many patients wearing dentures have trouble with the mandibular denture; many experience difficulty eating comfortably. Retaining their troublesome denture with implants gives these patients tremendous satisfaction - ALL PATIENTS needing dentures and wearing dentures SHOULD BE GIVEN THE OPTION of retaining their mandibular denture with implants!

The Celara technique allows the fabrication of implant-retained dentures to be very predictable, as easy as fabricating a crown, and with fewer patient visits. The Celara implant application can be used with any and all implant systems, and is applied in the diagnostic and treatment phases of fabricating implant retained dentures.

DIAGNOSTIC PHASE

A pre-surgical work up is always recommended to evaluate all critical aspects of the dentures, such as the space required for implants and adequate room for the prosthesis (the minimum distance required for an implant with bars is 12 mm. from the crest of the ridge to the incisal edge of the teeth), esthetics, speech along with patient approval and satisfaction. All the issues of the denture must be established, with patient approval, prior to the placement of implants. This is accomplished by fabricating a diagnostic denture or setting the teeth into the Celara wax pattern and verifying tooth positions at Try-In. If the patient is wearing a denture and is satisfied with all aspects of tooth position and esthetics, the existing denture is used to determine where the implants are to be placed by using a Celara surgical stent made from a wax pattern of the denture. The Celara Denture Technique allows the teeth in the definitive denture to be placed precisely in the same position as the diagnostic denture. (FIG. 3-1).

DETERMINING THE RADIOGRAPHIC ERROR

A wax pattern of the pre-surgical Set-Up or diagnostic denture or a wax pattern of the existing denture can be used to verify the radiographic errors inherent in all radiographs. This is critical to select the correct size implant, especially with patients with severely resorbed mandibular ridges. This wax pattern is implanted with 5 mm. ball bearings or a given size gutta percha point to calculate the distortion factor. For example, if the bearing measures 6 mm. on the image, the distortion in that section of the radiograph is 20%. What is measured on the radiograph is 20% too large. (FIG 3-2).

FIGURE 3-2
**TREATMENT PHASE**

**TREATMENT SEQUENCE**

THE CORRECT SEQUENCE IN THE TREATMENT AND FABRICATION OF IMPLANT RETAINED DENTURES IS:

1. Establishing the positions of the teeth in the denture - with a diagnostic denture or a Set-Up.
2. Fabricating a surgical stent -
3. Surgically placing the implants - using the surgical stent
4. Making a final impression - open tray preferred with pick up of impression posts
5. Verifying the framework
6. Delivering the prosthesis

This will ensure the implants are in the correct positions so that future problems such as fractures of implants, broken dentures, thick and thin areas of the dentures, and worst of all - patients complaining of esthetics after the dentures are delivered are avoided. The teeth may be mal-positioned because the implants were placed before tooth positions were established.

**ESTABLISHING TOOTH POSITIONS**

**USING THE CELARA TECHNIQUE**

The patient's existing denture is used as a custom tray and an impression is made. The impression is boxed in the Celara container and a cast is poured, and a wax pattern is made. The wax pattern is used to obtain records and obtain centric relation. In the laboratory, the casts are mounted using the wax pattern and a Set-Up is provided from which the tooth positions can be evaluated or a diagnostic denture fabricated. A diagnostic denture verifies all aspects of the denture prior to the placement of the implants. An acceptable existing denture can be retrofitted with implants very easily using the Celara Technique.

**FABRICATING THE SURGICAL STENT AND OPEN TRAY**

The existing denture, the diagnostic denture, or a Set-Up is used to make an impression and two (2) wax patterns are injected over the cast. They are both processed in clear acrylic in the laboratory. One is used for a surgical stent. (FIG 3-3). The stent can be made with surgical paralleling guides and have openings in the facial and lingual areas to aid in aspiration during surgery. The other pattern can be made into an open tray. (FIG. 3-4).

The open tray is cut out in the anterior to allow capturing the impression posts, vertical dimension, and centric relation thus all are recorded simultaneously with the unique Celara Open Tray.

Thus all necessary information is provided to the dental laboratory with one impression using the Celara Open Tray.
The Celara Open Tray offers all the accuracy of an open tray technique in addition to providing the correct vertical and centric relation records. The impression using the Celara Open Tray provides the laboratory all the information necessary to complete the case. The Celara Open Tray is virtually a “triple tray” providing the laboratory the correct vertical, the occlusion, and a pick up of the implant impression posts.

The doctor can verify the superstructure fit and have the final denture made, using the Celara technique, assuring the teeth are in the same positions as was determined in the diagnostic denture. Fig. 5.

**OPTIONAL IN-OFFICE FABRICATION OF THE SURGICAL STENT AND OPEN TRAY**

The stent and open tray can be made in the dental office by pouring self-curing acrylic resin into a mold using the Celara container with alginate in each half. This is easily accomplished by placing a new upper container over the boxed impression in the lower container and pouring alginate into this upper container. Alginate will not adhere to itself once set.

The Celara Implant application makes the fabrication of implant retained dentures as predictable and as routine as crown and bridge. One master final impression provides the laboratory all the information necessary to fabricate the superstructure and denture without using cumbersome appointments with base-plates and rims, and the need for “challenging” delivery appointments such as pick-up procedures in acrylic.

**LABORATORY ASPECTS OF IMPLANT RETAINED DENTURES USING THE CELARA TECHNIQUE**

A wax pattern imbedded with a ball bearing or a gutta percha becomes an excellent means of calculating the radiographic error.

Typically, two wax patterns made from the diagnostic denture, set-up, or the existing denture are processed in clear acrylic. This is accomplished by investing the wax pattern(s) and packing and curing with clear acrylic. The processed clear acrylic patterns become a surgical stent and/or open tray.

The Celara technique provides a very accurate method to fabricate the final denture with the teeth in exactly the same position as the diagnostic denture or set-up.

NOTES:
CHAPTER 4: NEW DENTURE TECHNIQUE

The Celara technique has applications for making dentures for edentulous patients without dentures using a thermoplastic tray from Dentsply - “TrayByte™.” The trays are originally intended to make the impressions and contour the rim and make all the records on the first appointment. It seems like a good idea on the surface, however, in application, the technique leaves a lot to be desired! If the rims are contoured first, making impressions and obtaining the bite simultaneously is very difficult and unpredictable. While making the impressions first and contouring the rims is awkward and difficult and often the tray interferes with the rim, along with the rims occasionally dislodging from the trays.

Celara has an application with these trays whereby the impressions can be made, the rims marked, and the impressions boxed and a cast poured. The boxed impressions are sent to the laboratory and the laboratory injects the rim and contours the rim and can provide a partial set-up for the 2nd appointment. If the office desires, the marked impressions can be converted to a modified rim in the office with a wax-injector and all records can be obtained on the first appointment.

With the Celara New Denture technique, it is recommended that the impressions be made separately, usually the maxillary arch first, followed by the mandibular arch.

MAKING THE IMPRESSION

1. The appropriate size thermoplastic tray with rim is selected and evaluated in the mouth. The tray should extend approximately 1/8" beyond each side of the arches. (FIG. 4-1).
2. The thermal tray is softened in hot water. Using the small handle, soften only the thermal plastic. Avoid softening the wax rim. (FIG. 4-2).
3. Border mold the softened peripheries and adapt the tray to the ridge.
4. Allow the thermoplastic to completely harden. If the frenulums need relieving - use a knife cutting out relief from the tray. Also, if undercuts exist, the thermoplastic can be trimmed relieving the undercuts.
5. Apply the appropriate adhesive to the tray. When using the thermal plastic tray, use adhesive over the entire tissue surface of the tray as well as the borders. Prepare the patient for the impression by having the patient rinse with cold water. The cold water rinse helps shrink the tissues and significantly contributes to making an accurate impression.

FIGURE 4-1

FIGURE 4-2
DRY THE RIDGES AND MAKE FINAL IMPRESSION

Make the impression with your preferred impression material. It is recommended to use a MEDIUM BODY viscosity in a single stage technique. Irreversible hydrocolloid - alginate - is not recommended with this technique, as alginate will easily distort when the impression is re-inserted in the mouth.

MARKING THE WAX RIM

Remove the impression from the mouth and remove all excess impression material on the facial surface of the rim. The tray with the impression is re-inserted in the mouth, and the rim is marked with mid-line, incisal edge position, and planes of occlusion. The cuspid position can be marked using the ala of the nose, and the smile line may be scribed. Make sure all markings on the wax rim are adequately represented DISTINCTLY AND CLEARLY. (FIG. 4-3).

If desired, the posterior border of the impression can be marked using a Thompson Stick, registering the vibrating line.

BOXING THE IMPRESSION AND POURING CAST

It is NOT recommended to send the thermal plastic tray with impression to the laboratory without pouring a cast in that the thermal plastic can distort in extreme heat. It is recommended that the impression is boxed in the Celara container and a cast is poured in the dental office. The impression is boxed in the Celara container and a cast is poured using the Celara kit. When boxing the impression in the Celara container, remove the handle of the tray to ensure the impression is adequately submerged in the alginate with only 1-2 mm of the impression borders above the alginate.

1. Empty a full package of Celara alginate into a clean mixing bowl and add a full lower container of water.
2. The resulting thin mix of alginate is poured into the lower half of the container approximately 7/8 full - 1/8” from the top.
3. Immerse the impression and marked rim - rim side down - into the alginate so that approximately 1-2 mm. of the boarders of the impression are above the alginate. (FIG. 4-4).
4. After the alginate sets, make sure to remove all excess alginate from the impressed surfaces of the impression - cutting it away with a dull knife. All surfaces of the impression must be exposed prior to pouring the cast - especially the posterior borders which tend to be immersed in the alginate. (FIG. 4-5).
5. Place the upper half of the container on top of the lower half, making sure the containers ledges seat evenly. Mix the Celara stone measuring the water with the water measure provided. If a vibrator is used, the containers should be secured tightly with a rubber band.
The containers, with alginate on one side and a stone cast on the other side, can be sent to the laboratory unopened. There is enough moisture in the stone to prevent the alginate from distorting, with the container sent in a sealed bag.

The laboratory will receive the containers and inject a wax pattern of the tray and marked rim over the stabilized hard base. The markings provide the laboratory the ability to properly contour the maxillary rim. If the mold and shade of the teeth are provided, the laboratory can provide a partial set-up of the maxillary arch - the six anterior teeth - along with a base plate and rim on the mandibular arch. All records with a maxillary partial try-in are quickly and easily obtained on the second appointment. (FIG. 4-6).

The mandibular wax rim can be contoured so that at the proper vertical dimension, the posterior is slightly open to aid in taking an accurate centric occlusal record. It is also helpful to imbed cut ends of paperclips in the molar region of the mandibular rim to stabilize the rim on the ridge when taking the centric relation record. (FIG. 4-7).

**OPTIONAL IN-OFFICE WAX RIM FABRICATION**

A wax record base can easily be obtained on the same appointment as impressions, with the office having a wax injector.

- The container is opened, after the Celara stone hardens (approximately 5-7 minutes) and the impression is removed. Celara model release agent is applied to all aspects of the cast.
- Sprue holes are created in the alginate container using a #8 round bur or cork boring tool. Make sure the sprue holes are in the middle of the container and opposite each other. (FIG. 4-8).
- The containers are secured together tightly with a rubber band and the wax is injected very slowly into the void created by the tray and rim.
- Hold the container on the inlet sprue for 20-30 seconds allowing the wax to harden in the inlet sprue before removing it, preventing the wax from running out the inlet sprue when the container is lifted off the inlet of the wax-injector. If the wax runs out, voids are created in the distal areas of the wax pattern.
- The injected container is placed in a cold water bath for 5 minutes to allow the wax to completely harden.
- The container is separated using a knife, and the wax-pattern is contoured to the markings transferred. Most of the contouring of the wax pattern should be done with the pattern seated on the cast.
- The markings on the original rim will be transferred so that the rim will be properly contoured prior to being used in the operatory. This saves valuable chair time, so that all the records can be obtained along with the centric relation bite.
- The wax-patterns should be seated and sealed to the cast for shipping to the laboratory. If the mold and shade are provided, a complete set-up can be obtained for the second appointment.
LABORATORY PROCEDURES - NEW DENTURE TECHNIQUE

The laboratory will receive the boxed impression and cast in the Celara container in a TIGHTLY SEALED BAG. The containers may not have the impression removed from the cast. After carefully removing the impression from the cast, it is important to place the alginate container back into the sealed bag while a stabilized hard base is made on the cast. (FIG 4-9).

FABRICATING THE STABILIZED HARD BASE

Carefully remove the cast from the container. It can easily be removed by pushing up the base of the cast. The containers are tapered to allow easy removal of the cast and reinserting.

DO NOT TRIM THE CAST- The stabilized hard base is fabricated on the cast untrimmed so that the cast can be re-inserted in the container to inject the wax. Block out undercuts. (FIG. 4-10).

FIGURE 4-9

Fabricate a stabilized hard base with your preferred technique, a Triad light cured base, an Omni Vac suck down base, or a sprinkled acrylic base. The base must be made “thin” to allow complete closure of the containers. The borders are made intentionally short so that the borders are in wax. The cast untrimmed will fit under an Omni-Vac machine. Do not be concerned if the borders do not register in the Omni-Vac base as the borders should be injected in wax. (FIG. 4-11).

Secure the hard base to the cast using wax and place the cast back into the container.

FIGURE 4-10

FIGURE 4-11

SPRUING THE ALGINATE CONTAINER

Remove the alginate container from the sealed bag. Make a hole in the anterior region - approximately 1/8” in diameter - through the alginate container using a lab drill or cork boring tool. (FIG. 4-12).

The maxillary container will have an entrance hole in the anterior and an exit hole directly opposite in the posterior. (FIG 4-13).

FIGURE 4-12

FIGURE 4-13
The mandibular container will have one entrance hole in the anterior and two exit holes, one each at the distal retromolar pad areas of the container. (FIG. 4-14).

Avoid having the entrance holes close to the container’s ledge. The hole should be in the middle of the container and enter the void in the alginate created by the impression, and NOT in the land area of the stone. The hole should enter the anterior flange of the impression, and not in the impression of the marked rim. (FIG. 4-15).

Clean the sprue holes out with air and carefully dry the alginate. If the alginate is excessively wet, this may result in the wax pattern not accurately representing the markings on the rim.

**FIGURE 4-14**

**INJECTING THE WAX PATTERN**

Follow the instructions for the wax-injector on Page 21.

Apply Celara Model Release Agent to all areas of the stone cast - ALL STONE AREAS EXPOSED.

Secure the containers together tightly with rubber bands and test the wax-injector - PUMP SLOWLY.

Place the container vertically, inserting the inlet sprue into the inlet of the wax-injector. (FIG. 4-16). Pump the wax slowly filling the container with molten wax until the wax extrudes from the exit sprue(s). If the two exit holes are used, for the mandibular arch, place one finger over the exit sprue where wax extrudes first, and continue to pump slowly, forcing wax through the second hole. (FIG. 4-17).

*Do not immediately remove the container from the injector tip.* Hold the container on the injector tip for 20-30 seconds before removing it. This will prevent the wax from running out the inlet sprue when the container is lifted off. Lifting the container before the wax hardens in the inlet sprue results in voids in the distal of the wax pattern.

**FIGURE 4-17**

Lift the container off the injector tip and place the container in a cold water bath to allow the wax to harden. Carefully separate the container and remove the pattern from the cast. The wax pattern of the marked rim can be contoured and if the mold and shade of the anterior teeth are indicated, a partial set-up is provided. (FIG. 4-18).

**FIGURE 4-15**

**FIGURE 4-16**

**FIGURE 18**
The mandibular rim is similarly injected, or a conventional base plate and rim can be fabricated. The doctors will use the rims to obtain the records as traditionally done. It is helpful to obtain an accurate centric relation record—"bite," the mandibular rim be made open in the posterior, with paper clip ends imbedded in the rim in the first molar area to aid in seating the base plate to the ridge while centric relation is captured. (FIG 4-19).
CHAPTER 5: SPARE DENTURE TECHNIQUE

The Celara Denture technique enables the doctor to provide a spare denture to patients without the inconvenience of sending the patient’s denture to the dental laboratory.

IN OFFICE TECHNIQUE

1. Immerse the patient’s denture into a thin mix of alginate in the lower half of a Celara container, (FIG. 5-1) and allow alginate to set. It is not critical that the borders be only 1-2 mm. above the alginate.

2. Remove all excess alginate on the tissue surfaces of the denture cutting the alginate away with a small knife. (FIG. 5-2).

3. Place the top half of the container and secure both halves with a rubber band.

4. Mix a second loose mix of alginate and pour this mix of alginate over the lower half with the denture imbedded in alginate. Note, alginate will not stick to alginate once the original alginate is set.

5. After the alginate sets, remove the rubber band and separate the containers using a knife.

6. Carefully remove the denture from the alginate. Now you have an alginate impression of the external surface of the denture in one half of the container and an alginate impression of the tissue surface in the other half of the container. (FIG. 5-3).

7. Place a 2 x 2 damp gauze or damp papertowel between the containers and place a rubber band around the containers.

8. Send the container to the laboratory in a TIGHTLY SEALED bag. (FIG. 5-4).

NOTE: It may be desirable to give the laboratory an extra impression of the teeth so that the laboratory can fabricate the teeth, while the container to inject the acrylic remains sealed in a bag to prevent the alginate from shrinking.
LABORATORY PROCEDURES FOR THE SPARE DENTURE

The laboratory will receive the impressions of the denture in the Celara containers with the containers placed in a sealed bag. Alginate will be on both sides of the container.

After disinfection procedures, the teeth are sprinkled with tooth colored self-curing acrylic, allowed to harden, and then trimmed. Keep the lower half of the container in the sealed bag while the teeth are being made to prevent the alginate from shrinking.

The spare denture is made using your preferred technique and your preferred materials usually using a pour technique resin. If a pour technique is used, it is easily accomplished through the Celara container.

Thank you again for implementing the Celara Denture Technique into your practice.

Please call us, or a Celara Certified Partner Laboratory anytime with questions, comments, or suggestions.

We all look forward to continuing to work hard for you and your growing practice.

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