University of California, San Diego Pre-Dental Society	
CHAIRSIDE ASSISTANT TRAINING MANUAL	
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OBJECTIVE: The objective of this manual is to provide general training for new chairside volunteers in clinic policies and procedures, and to detail their roles in facilitating efficient clinic operations. The manual covers the following topics:

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1. Clinic Rules and Attendance

I. Clinic Rules

- Do not use cell phones in clinic.
- Conversations should be patient-appropriate and clinic-related. Do not stand around idly if not assisting—ask managers if you can help with anything!
- Mandatory attire: scrubs, nametag, disposable gowns (one-time use only!), closed-toed shoes with socks (no UGGs, flats, Crocs, etc). Do not wear excessive and/or dangling jewelry. Hair that is longer than 2 inches below the earlobe must be tied up.
- Maintain infection control via OSHA protocol: <u>Do NOT touch</u> anything considered clean (i.e. cabinets, counters, etc.) with gloves on, even if your gloves are clean! Gloves are always considered dirty.
- Do NOT touch needles!
- Make sure to eat before clinic and stay hydrated!

II. Clinic Attendance

- The volunteer scheduler sends out biweekly sign-ups for clinic. It is your responsibility to check the spreadsheet for your assigned clinic session.
- Do NOT be late for clinic! Allot time for possible traffic. If you will be late, notify the manager ASAP. Three tardies will result in a 3-month suspension.
- If you cannot make it to clinic, it is your responsibility to find a replacement or it will count as a no-show.
- A no-show will result in a one-month suspension for new volunteers and a three-month suspension for regular volunteers.

2. Roles of the Chairside Assistant

I. Pulling patient charts and taking blood pressure

- All forms in chart must be signed and have patient name on each page
- Take patient blood pressure. Record it on the next available line in the treatment form, followed by your initials. Do not skip lines!
- Look over medical history and present to the dentist any medications, medical conditions (i.e. hypertension, diabetes, etc.), or allergies that may be pertinent to the procedure.

II. Setting up the dental chair and unit

- Birex chair (including light) and unit (including tray counter, highspeed evacuator, saliva ejector, air-water syringe, and all tubings). Birex is carcinogenic—Use only with gloves on!
- Take gloves off. Place barrier tape on light handles, light switch, and chair remote control. Place headrest cover over headrest. Make sure light and chair are functioning. (See page 7 for images)
- Make sure water reservoir is adequately filled with distilled water. Do not screw reservoir back on too tightly.
- Place disposable tips on air-water syringe, high-velocity evacuator (HVE, or high-speed suction), and saliva ejector (slow-speed suction). Test the air-water syringe and both suctions. (See page 7 for images)
- Place plastic sleeves over the tips. Penetrate the plastic sleeves with the respective air-water syringe tip and suction tips. Arch the saliva ejector tip.
- Let clinic manager know that the chair is ready for the patient. Put on protective wear: disposable gown, clear goggles/glasses, mask, and gloves.

III. Preparing patient for procedures

• After clinic manager has seated patient (with patient chart) and floor manager has set down instrument tray, place bib around patient (Shiny side down! Fold the top 1-inch of the bib down before clipping for more support).

- Give the patient dark sunglasses to protect his/her eyes from the dentist's light. Have the patient rinse his/her mouth with mouthwash.
- Make polite conversation with the patient until dentist arrives. Keep conversations appropriate.

IV. Assisting the dentist

- Charting: You will assist the dentist when performing an oral exam. Familiarize yourself with oral anatomy (**See page 8**)!
- During procedures, you will be mainly involved with:
 - *Using the high-speed evacuator and saliva ejector* (**See pages 10 11** for general suctioning guidelines)
 - OUsing the air-water syringe (Think WA as in Washington: Water is the left button, used for rinsing a patient's mouth. Air is the right button, used for drying a tooth or keeping the dentist's mirror from fogging up)
 - oPassing instruments: Familiarize yourself with the instruments for various procedures with the **Instrument Packet** available at http://fdc-pds.ucsd.edu/Volunteer/volunteer.html. When passing instruments, use four-handed dentistry (**See page 11** for more details)
 - Other chairside duties for specific procedures are further detailed on pages 12 - 13!

V. Breaking down the chair and unit

- Always break down and set up the chair as quickly as possible for maximum efficiency of the clinic!
- With gloves on, remove handpieces and cavitron tips and place on instrument tray. **DO NOT TOUCH NEEDLES!** Only managers and dentists can handle needles.
- Remove and dispose of suction tips, air-water syringe tips, and respective barriers. Make sure to remove only the disposable tip of the saliva ejector. Do not remove the rubber tip, it is NOT replaceable!!

- Remove headrest cover and light barriers.
- Take off dirty gloves and put on clean gloves. Birex the chair and the unit, as well as anything that has been touched (including the sunglasses and bib clips). Do not forget to birex the curing light and cavitron if used! Set up the chair as described in Part II. Run lines briefly after bloody extractions.
- If the chair will no longer be used for the current clinic session, you do not need to replace the light barriers, headrest cover, and the suction and air-water syringe tips. Instead, run both suction lines with line solution. Take caution when running the lines, do not overwhelm the vacuum!



Note: Use ungloved hand to open Birex container and use gloved hand to retrieve Birex



A. Incomplete Chair set-up



B. Headrest Cover



C. Barrier tape covers light handles and light switch



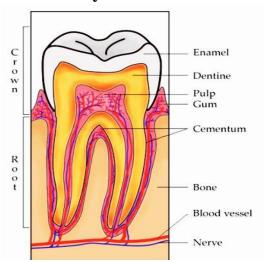
D. High-velocity evacuator (left) and low speed suction (right) with respective disposable tips and plastic sleeves



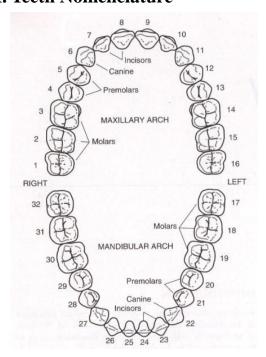
E. Air-Water Syringe with disposable tip and sleeve

3. Oral Anatomy

I. Tooth Anatomy



II. Teeth Nomenclature

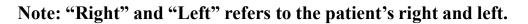


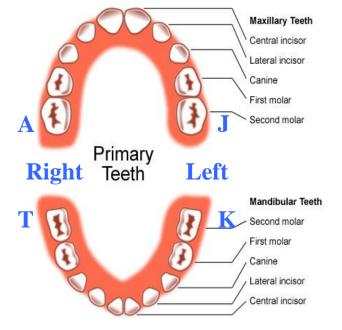
A. Permanent Teeth

1 – 16 Upper (Maxillary) 17 – 32 Lower (Mandibular) B. Primary Teeth

A – J Upper (Maxillary)

K – T Lower (Mandibular)





4. General Suctioning Guidelines

The main purpose of the high-velocity evacuator (HVE) is to *remove aerosols* from the environment and keep the tooth of interest isolated and dry. The main purpose of the saliva ejector is to reduce pooling of saliva.

I. General Suctioning Guidelines

- Never place suctions down the middle of patient's mouth. This will cause the patient to gag or choke.
- Do not touch the dentist's instrument or handpiece with the suction!
- Position the suction so that it does not obstruct the dentist's mirror or the dentist's line of sight, and does not suction intra-oral tissues (i.e. cheek, tongue, lips)
- An HVE should be placed opposite the side of the handpiece or instrument. The HVE inlet should be oriented slightly occlusal and lateral to the aerosol source. It should be placed no more than 1-2 cm away from the aerosol-producing instrument—close enough to adequately reduce aerosols, but not so close that there is excessive pinching or stretching forces on intra-oral tissues. Examples are illustrated below.



A. Incorrect suctioning: HVE is pulling the cheek with too much lateral force, causing discomfort. The HVE inlet is nearly touching the handpiece and is too close to the tongue. (Mandibular molar)



B. Correct suctioning: HVE is putting less lateral force on the cheek. The HVE inlet is facing the hard tooth surface and is further away from the tongue.



C. Correct suctioning of mandibular anterior teeth

5. Four-Handed Dentistry Basics

Four-handed dentistry is a system for passing instruments between a dentist and his/her assistant that maximizes speed and efficiency during procedures.

Pick up the requested instrument with your thumb and index finger and pass it to the thumb and index finger of the dentist, orienting it so that the dentist does not need to make further maneuvers to use it properly. At the same time, with your pinky, take away the instrument that the dentist is finished using.



A. Four-Handed Dentistry: Chairside assistant (mint-colored glove) takes used instrument with pinky and hands over requested instrument with thumb and index finger.

6. Assisting for Composite Filling and Extraction

This section outlines the basic steps for a composite filling and an extraction. The bulleted points highlight the general role of the chairside assistant at each step of the procedure.

I. Composite filling

- 1. Application of topical anesthetic and local anesthetic
 - Rinse with air-water syringe after application of local anesthetics
- 2. Removal of decay and unsupported tooth structure with high-speed handpiece
 - Use high-velocity evacuator to reduce aerosol and eliminate water and residue
- 3. Application of etch
 - Use high-velocity evacuator to keep area isolated
- 4. Application of bonding agent
 - Use HVE to keep area dry and isolated. Cure with curing light.
- 5. Insertion of composite
 - Pass requested instruments using four-handed dentistry.
 - Clean composite instruments with gauze immediately! Cure composite material.
- 6. Polishing of composite with polishing burs
 - Use high-velocity evacuator to suction residue and reduce aerosol
- 7. Check occlusion with articulating paper

II. Extraction

- 1. Application of topical anesthetic and local anesthetic
 - Rinse and suction after application of local anesthetics
- 2. Separation of tooth from periodontal ligament using periosteal
- 3. Expansion of socket and further separation of tooth from ligament/bone using small/large elevator
- 4. Use of extraction forcep to remove tooth
 - Never remove any tooth fragments from dental tray until the procedure is finished! This is to ensure that the tooth was completely removed and no broken fragments remain in the extraction site.

Extraction (Continued)

- 5. Removal of debris or infected tissue from socket
- 6. Compression of socket
- 7. Irrigation of socket and rounding off of any sharp bone edges with bone file
- 8. Insertion of gauze in extraction site. Possible prescription of painkillers/antibiotics.
 - Give patient extra gauze packets.
 - Give patient post-op instructions.

7. References

- 1. <u>Ask Dr. Sun.</u> 5 Mar. 2009. WordPress.com. 29 Sept. 2012 http://sundds.files.wordpress.com/2009/03/1.jpg>
- 2. Amsel, Martyn. "Working better: Four-handed Dentistry." <u>PPD</u>. 16 Jan. 201 2. 29 Sept. 2012 < http://www.ppdentistry.com/dental-clinical-articles/article/working-better-four-handed-dentistry>
- 2. <u>Riverside Dental Clinic</u>. 1 Aug. 2012. Riverside Dental Clinic. 29 Sept. 201 2 < http://riversidemdc.com/images/ToothAnatomy.jpg>
- 3. <u>Studio Dentaire</u>. 2011. Studio Dentaire. 29 Sept. 2012 http://www.studiodentaire.com/images/en/primary_teeth.jpg

8. Credits:

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