One of the key elements in a successful dental practice is a positive working relationship with the commercial dental laboratory of your choice.

The construction of a modern dental prosthesis is an intricate, time-consuming project that most busy dentists cannot take on without a considerable sacrifice of chairside time. Further, not all dentists can match the skills of well-trained dental technicians working in a modern, well-equipped laboratory. Yet the best dental laboratory cannot exist without the busy dentist. Both are dependent upon the other for their individual success.

One of the key elements in a successful dental practice is a positive working relationship with the commercial dental laboratory of your choice. Most successful dentists agree that the support and cooperation of a first-class laboratory offers a number of advantages. If you don’t establish this type of relationship, both your practice and your disposition will suffer accordingly.

The keys to a successful relationship are mutual confidence, understanding and respect brought about by clearly defined responsibilities and open, two-way channels of communication. Dentists can build the foundation for open communication and high quality workmanship by providing the dental laboratory with accurate impressions and detailed laboratory procedure authorizations.

Dentists are encouraged to take their staff on a tour of the dental laboratory so that they understand the process of creating prosthesis/appliances and to meet the dental laboratory staff. This fosters better communication between the dental office and the dental laboratory.

Choosing the Right Laboratory
Dental laboratories do differ, often widely. These variances include services performed, level of quality, size and capacity, ethics and fees for service.

You will be tempted to be guided in your selection by the advice of other dentists, or even by how close a laboratory is located to your office. These concerns have some merit, but are not the only criteria by which you should select a laboratory. And the proximity of a laboratory to your office may not be as important to you after other issues are considered in the total selection process.

There are no tried and true methods that will guarantee that your first laboratory choice is the right one. However, there are guidelines that will help you to avoid the time-consuming—and costly—trial and error method. Consider the following:

Quality
Quality is clearly the most critical of all factors to be considered. Laboratory work of highest quality relies principally on well trained and knowledgeable technicians. It must be emphasized that the dentist has an equal responsibility. His or her work and records must reflect the same high standard he expects of the laboratory. Only in this joint effort is the goal of high quality achieved.

Factors of quality
- Technicians must have the artistry and esthetic sense important to their work.
- They must be able to interpret and work with laboratory prescriptions.
- They must have a complete knowledge of occlusion, articulators and the functional requirements of the dentition.
- Technicians must be acquainted with new techniques, products and materials.
- Frequent change of personnel causes abrupt changes in quality. This is why a laboratory must be continually monitored. If there are frequent personnel changes, something may be wrong.
- The lab should have adequate numbers of technicians in the facility to handle the work load.

Reasonably reliable indications of quality are a laboratory’s membership in national and state associations, its status as a Certified Dental Laboratory (CDL) and the number and variety of Certified Dental Technicians (CDT’s) it employs.
Variety of services
The variety of services offered by the laboratory is important. Will your practice concentrate on fixed prostheses, removable or both? Dental laboratories can specialize in one or the other and some offer all services, even orthodontic. Decide what services you will require and then choose your laboratory (or laboratories) on the basis of what they can do for your patients.

Service needs
Beyond quality prostheses, your good working relationship will depend as well on the following factors.

Communication/cooperation: The laboratory supervisor and technicians must be able to communicate on a personal level with the dentist. The dentist should meet the staff and get a general sense of the work atmosphere of the laboratory. During your visit to the facility, try to spend time at the bench with the technicians who will be servicing your cases. A flow of information between the dentist, his or her dental staff, and technician must exist, along with a sense of rapport.

Accountability: The dental laboratory owner/manager must accept responsibility for the work of the technician employees.

Efficient and prompt delivery: Most laboratories find ways to provide this basic service efficiently. If they do not, it is a factor that is at least more easily controlled than the others listed.

Location and distance: Ideally laboratories should be a reasonable distance from the dentist’s office, to avoid delays and high mailing costs.

Laboratory policy: Clearly articulated policies should exist regarding time needed to complete cases, responsibility for remakes, an established fee schedule for work accomplished and a schedule for timely payment of laboratory bills.

Outsourcing: Ask your lab to identify cases that are outsourced, especially from offshore labs. Dental labs that utilize offshore labs are required to register with the US Food and Drug Administration and prostheses must be marked “distributed by” rather than “manufactured by.”

Please note that some state dental boards have specific requirements regarding what should be placed in removable appliances, such as patient names.

Education
Inquire about the laboratory’s continuing education efforts. The manager and his employees should be aware of the latest technical developments and concepts through participation and attendance at technical seminars and clinics. (If the laboratory employs Certified Dental Technicians [CDT’s], they are required to participate in continuing education programs each year to retain their certification status.)

Ethical considerations
Ethics are also important. Select a laboratory that emphasizes high standards of technical performance and business ethics. Some commercial dental laboratories voluntarily elect to meet specified qualification standards under the Certified Dental Laboratory (CDL) program or join national and state trade associations such as the National Association of Dental Laboratories or the Dental Laboratory Conference.

Costs
While costs of service are important, they should not be the major yardstick for measuring if a laboratory is right for you. Fees should be commensurate with quality and service. Higher cost does not necessarily reflect higher quality and a search for the lowest possible fee is probably a misdirection.

Work schedules
Most laboratories have established work schedules outlining the time required to complete a particular laboratory service. Review this work schedule to determine if it coincides with your office appointment procedures. Punctuality can be verified by discussing the laboratory’s service with other dentists. Ask the laboratory for references.
ADA Statement on Prosthetic Care and Dental Laboratories


Introduction: Patient care in dentistry often involves the restoration or reconstruction of oral and peri-oral tissues. The dentist may elect to use various types of prostheses to treat the patient and may utilize the supportive services of a dental laboratory and its technical staff to custom manufacture the prostheses according to specifications determined by the dentist.

Since the dentist-provider is ultimately responsible for the patient’s care, the Association believes that he or she is the only individual qualified to accept responsibility for prosthetic care. At the same time, the dental profession recognizes and acknowledges with gratitude and respect the significant contributions of dental laboratory technicians to the health, function and aesthetics of dental patients.

This statement outlines the Association’s policy on the optimal working relationship between dentist and dental laboratory, the regulation of dental laboratories and issues regarding the provision of prosthetic care. A glossary of terms is a part of this statement.

Because of the dentist’s primary role in providing prosthetic dental care, the Association, through its Department of State Government Affairs and the Council on Dental Practice, provides upon request assistance to state dental societies in dealing with issues addressed in this statement.

Diagnosis and Prosthetic Dental Treatment: It is the position of the American Dental Association that diagnosis and treatment of complete and partial denture patients must be provided only by licensed dentists and only within the greater context of evaluating, treating and monitoring the patient’s overall oral health. The Association believes that the dentist, by virtue of education, experience and licensure, is best qualified to provide denture treatment to the public with the highest degree of quality. As a result of its belief that dental care is the responsibility of a licensed dentist, the Association opposes prosthetic dental treatment by any other individuals. Further, the Association will actively work to prevent the enactment of any legislation or regulation allowing such activity or programs, on the grounds that it would be dangerous and detrimental to the public’s health.

Working Relationships Between Dentists and Dental Laboratories: The current high standard of prosthetic dental care is directly related to, and remains dependent upon, mutual respect within the dental team for the abilities and contributions of each member. The following guidelines are designed to foster good relations between dental laboratories, dental laboratory technicians and the dental profession.

Applicable laws shall take precedence if they are inconsistent with any of the following guidelines.

The Dentist:
1. The dentist should provide written instructions to the laboratory or dental technician. The written instructions should detail the work which is to be performed, describe the materials which are to be used and be written in a clear and understandable fashion. A duplicate copy of the written instructions should be retained for a period of time as may be required by law.
2. The dentist should provide the laboratory/technician with accurate impressions, casts, occlusal registrations and/or mounted casts.
3. The dentist should identify, as appropriate, the crown margins, post palatal seal, denture borders, any areas to be relieved and design of the removable partial dentures on all cases.
4. The dentist should furnish instructions regarding preferred materials, coloration, description of prosthetic tooth/teeth to be utilized for fixed or removable prosthesis which may include, but not be limited to a written description, photo-graph, drawing or shade button.
5. The dentist should provide verbal or written approval to proceed with a laboratory procedure, or make any appropriate change(s) to the written instructions as the dentist deems necessary, when notified by a laboratory/dental technician that a case may have a questionable area with respect to paragraphs 2-4.

6. The dentist should clean and disinfect all items according to current infection control standards prior to sending them to the laboratory/technician. All prostheses and other materials which are forwarded to the laboratory/technician should be prepared for transport utilizing an appropriate container and packaged adequately to prevent damage and maintain accuracy.

7. The dentist should return all casts, registration and prostheses/appliances to the laboratory/technician if a prosthesis/appliance does not fit properly, or if shade selection is incorrect.

The Laboratory/Technician:

1. The laboratory/technician should custom manufacture dental prostheses/appliances which follow the guidelines set forth in the written instructions provided by the dentist, and should fit properly on the casts and mounting provided by the dentist. Original written instructions should be retained for a period of time as may be required by law.

When a laboratory provides custom printed written instruction forms to a dentist, the laboratory document should include the name of the laboratory and its address, provide ample space for the doctor’s written instruction, areas to indicate the desired delivery date, the patient’s name, a location for the doctor to provide his/her name and address, as well as to designate a site for the doctor to provide a signature. The form should also allow for other information which the laboratory may deem pertinent or which may be mandated by law.

2. The laboratory/technician should return the case to the dentist to check the mounting if there is any question of its accuracy or of the bite registration furnished by the dentist.

3. The laboratory/technician should match the shade which was described in the original written instructions.

4. The laboratory/technician should notify the dentist within two (2) working days after receipt of the case, if there is a reason for not proceeding with the work. Any changes or additions to the written instructions must be agreed to by the dentist and must be initialed by authorized laboratory personnel. A record of any changes shall be sent to the dentist upon completion of the case.

5. After acceptance of the written instructions, the laboratory/technician should custom manufacture and return the prostheses/appliances in a timely manner in accordance with the customary manner and with consideration of the doctor’s request. If written instructions are not accepted, the laboratory/technician should return the work in a timely manner and include a reason for denial.

6. The laboratory should follow current infection control standards with respect to the personal protective equipment and disinfection of prostheses/appliances and materials. All materials should be checked for breakage and immediately reported if found.

7. The laboratory/technician should inform the dentist of the materials present in the case and may suggest methods on how to properly handle and adjust these materials.

8. The laboratory/technician should clean and disinfect all incoming items from the dentist’s office; e.g., impressions, occlusal registrations, prostheses, etc., according to current infection control standards.

All prostheses and related items which are returned to the dentist should be cleaned and disinfected, placed in an appropriate container, packed properly to prevent breakage, and transported.
9. The laboratory/technician should inform the dentist of any subcontracting laboratory/technician employed for preparation of the case. The laboratory/technician should furnish a written order to the dental laboratory which has been engaged to perform some or all of the services on the original written instructions.

10. The laboratory/technician should not bill the patient directly unless permitted by the applicable law. The laboratory should not discuss or divulge any business arrangements between the dentist and the laboratory with the patient.

Instructions to Dental Laboratories: Complete and clearly written instructions foster improved communication and working relationships between dentists and dental laboratories and can prevent misunderstanding. State dental practice acts may specify the extent and scope of written instructions that are provided to dental laboratories for the custom manufacture of dental prostheses. These acts may describe the written instructions from the dentists to the dental laboratory as a “prescription” while other states refer to the instructions as a “work authorization” or “laboratory work order.” Realizing that terminology in state dental practice acts differ, constituent dental societies are urged to investigate appropriate terminology for their dental practice acts regarding the term(s) used to describe the written instructions between a dentist and a dental laboratory and between dental laboratories for subcontract work, since the term selected may have tax implications depending on state tax revenue codes.

Identification of Dental Prostheses: The Association urges members of the dental profession to mark, or request the dental laboratory to mark, all removable dental prostheses for patient identification. Properly marked dental prostheses assist in identifying victims in mass disaster, may be useful in police investigations and help prevent loss of the prostheses in institutional settings.

Shade Selection by Laboratory Personnel: Selection of the appropriate shade is a critical step in the custom manufacture of an aesthetically pleasing prosthesis. The Association believes that when a dentist requests the assistance of the dental laboratory technician in the shade selection process, that assistance on the part of the dental laboratory technician does not constitute the practice of dentistry, providing the activity is undertaken in consultation with the dentist and that it complies with the express written instructions of the dentist. The shade selection site, whether dental office or laboratory (where lawful), should be determined by the professional judgment of the dentist in the best interest of the patient and where communication between dentist, patient and technician is enhanced. When taking the shade in the laboratory, the dental technician should follow the appropriate clinical infection control protocol as outlined in the ADA’s infection control guidelines when dealing with the patient.

Regulation of Laboratories: The relationship between a dentist and a dental laboratory requires professional communication and business interaction. The dental laboratory staff may serve as a useful resource, providing product and technical information that will help the dentist in the overall planning of treatment to meet each patient’s needs. The dental laboratory staff may also consult with the dentist about new materials and their suggested uses. The Association applauds such cooperative efforts so long as the roles of the parties remain clear; the dentist must be responsible for the overall treatment of the patient and the dental laboratory is responsible for constructing high quality prosthetic appliances to meet the specifications determined by the dentist.

Some dentists may choose to own or operate a dental laboratory for the custom manufacture of dental prostheses for their patients or those patients of other dentists. The Association opposes any policy that prevents, restricts, or precludes dentists from acquiring ownership in dental laboratories.

In some states the issue of dental laboratory regulation has been addressed through requirements for registration, certification, licensure bills and some hybrids thereof. The Association believes
the basic tenet of regulation by any governmental agency is the protection of the public's health and welfare. In the delivery of dental care, that collective welfare is monitored and protected by state dental boards that have the jurisdictional power, as legislated under the state dental practice act, to issue licenses to dentists. These boards also have the power to suspend or revoke such licenses if such action is deemed warranted.

For decades, the public health and welfare has proven to be adequately protected under the current system of dental licensure. The dentist carries the ultimate responsibility for all aspects of the patient's dental care, including prosthetic treatment. In a free market society, dentists select dental laboratories that provide the best quality services and prostheses.

The Association opposes the creation of additional regulatory boards to oversee dental care and therefore, opposes any form of governmental regulation or licensure of dental laboratories not promulgated under the auspices of the state board of dentistry. The Association believes that a single state board of dentistry in each state is the most effective and cost-efficient means to protect the public’s dental welfare.

Glossary of Terms Relating to Dental Laboratories

Introduction: This glossary is designed to assist in developing a common language for discussion of laboratory issues by dental professionals and public policy makers. Certain terms may also be defined in state dental practice acts, which may vary from state to state.

**Must:** Indicates an imperative need or duty; an essential or indispensable item, mandatory.

**Should:** Indicates a suggested way to meet the standard; highly desirable.

**May or Could:** Indicates a freedom or liberty to follow suggested alternatives.

**Dental Applicance:** A device that is custom manufactured to provide a functional, protective, esthetic and/or therapeutic effect, usually as a part of oro-facial treatment.

**Dental Laboratory:** An entity engaged in the custom manufacture or repair of dental prostheses/appliances as directed by the written prescription or work authorization form from a licensed dentist.

**Dental Prosthesis:** An artificial appliance custom manufactured to replace one or more teeth or other oral or peri-oral structures in order to restore or alter function and aesthetics.

**Laboratory Certification:** A form of voluntary self-advancement in which a recognized, non-governmental agency verifies that a dental laboratory technician or a dental laboratory has met certain predetermined qualifications and is granted recognition.

**Laboratory Registration:** A form of regulation in which a governmental agency requires a dental laboratory or dental laboratory technician to meet certain predetermined requirements and also requires registration with the agency and payment of a fee to conduct business within that jurisdiction.

**Laboratory Licensure:** A form of regulation in which a governmental agency, empowered by legislative fiat, grants permission to a dental laboratory technician or dental laboratory to provide services to dentists following verification of certain educational requirements and a testing or on-site review procedure to ensure that a minimal degree of competency is attained. This form of regulation requires payment of a licensing fee to conduct business within a jurisdiction and may mandate continuing education requirements.

**Work Authorization/Laboratory Work Order:** Written directions or instructions from a licensed dentist to a dental laboratory authorizing the construction of a prosthesis. The directions or instructions included often vary from state to state but typically include: (1) the name and address of the dental laboratory, (2) the name and identification number, if needed, of the patient, (3) date, (4) a description of the work necessary and a diagram of the design, if appropriate for the appliance, (5) the specific type of the materials to be used in the construc-
tion of the appliance, (6) identification of materials used and submitted to the laboratory, and (7) the signature and license number of the requesting dentist. In those states where the term “prescription” is used in place of the term “work authorization” or “laboratory work order,” prescription is defined as written instructions from a licensed dentist to a dental laboratory authorizing the construction of a prosthesis to be completed and returned to the dentist.