

Student Leaves School: What Then?



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During the past three years of prosthetic education at Northwestern we have instructed 177 prosthetist-students. Many were preparing for certification, but the heaviest percentage came from persons already certified. This, we feel, is one of the main reasons for elevated standards in recent years within the prosthetic profession. For persons in any other field which make a claim of professionalism, there is one outstanding bond which joins all such groups—education.

Nothing in this life is static. How successful would we be in fitting a patient, if we concluded everything with static alignment? Dynamic alignment, we know very well, is the final proof. Our overall outlook should be dynamic, if we are to advance as professionals. Our relationship with patients and the service we render might not always improve and move forward by leaps and bounds, but we can be sure that it does move—one way or the other.

It has been a very rewarding experience for me to have taken part in prosthetic education. The gains have been obvious; yet areas in which there seems to be considerable room for improvement have also been evident. For one, let us consider knowledge of anatomy, kinesiology, and locomotion. Perhaps at the present time it is not realistic to expect that everyone who is exposed briefly to these subjects in our short-term courses will return to his respective area a changed man with zeal imbued to become an authority on these topics. There is a minimum goal, however. How can we do our best for the patient, to say nothing of enhancing our professional standing, if we do not continually strive for more understanding of the total problem? There is a long-established language for medical and paramedical people. If we are unable to communicate within this language or are apathetic in our desire to do so, this reduces our potential for rendering complete service.

There are many facets to successful handling of a patient, but if respect and confidence are missing, one can usually discount most of the others. This ability to talk intelligently and correctly with others involved with the patient's rehabilitation is immeasurably important. In our schools we try to stimulate interest in this direction, but sometimes we wonder what degree of success we've had. There is no question but that this part of our schedule does not consume a large part of the time spent. It would be won-

derful, if we could be more certain that this particular phase of training carries over into practice after the student leaves, with increased awareness of its importance. We are forced into situations repeatedly where we expose ourselves as being informed or uninformed. Which is to be preferred? "Silence is golden" is only a partial truth. It enables one to cover up lack of knowledge for a time if used judiciously, but the "gold" becomes tarnished from undue exposure.

During the last year we have made it mandatory for each student to purchase a copy of *The Extremities* by Quiring and Warfel. This is an inexpensive book giving very concise and pertinent information about muscles and their action, nerves, and bone structure. It supplies a quick and easy reference source and should have considerable use in daily activities where the desire exists for improvement in usage of correct terms in communicating with others. We have always urged active participation by the prosthetist in our clinic team sessions with the hope that it will provide impetus for such action when he returns to his home town. Knowledge must precede participation, if it is to be meaningful.

After learning words there is the next step of understanding their application. This is where kinesiology and locomotion become important. We sincerely hope that the "whys" are covered sufficiently in our classes. We deal directly every day with the action of the body. The imbalance of muscles, deficiencies in their strength and action resulting from any amputation are things we cannot know too much about. It is discouraging in a way, to realize that the general information which the student is able to take home from the short time spent at schools is so heavily weighted with the techniques of procedure. These are, without question, necessary. If he does not know the "hows," what can he do with the "whys?" He must know how to make the prosthesis being taught and to handle the materials to advantage with the hope that he will retain the ability to perform without the instructor. This is time consuming.

During all of the classes our instructors are available to answer questions as well as ask them in the practical periods. We feel, for the most part, that the student who comes here to learn how to make a patellar-tendon-bearing below-knee prosthesis leaves with all he can absorb within the time allotted. He has measured and fitted three prostheses and attended classes in all allied subject matter—but it is not infrequent that the final examination shows the subjects of anatomy, kinesiology and locomotion to be his weakest when he departs. There seems to be little more that can be done while he is at school, except to hammer away at the importance of these subjects. Many students will say, "I know this is important, but when I go home we never use these terms." Even if he does not attend clinics or have much outside activities, it is difficult to imagine that a conscious start cannot be made towards using proper nomenclature if only in a limited fashion. Isn't it possible to say that one is going to relieve the tibial crest instead of "the shin bone?" Undoubtedly there are some shop situations where this unfortunately would be greeted with derisive comments by some fellow workers. If this be the case, then a great responsibility lies on the owner of the facility to work at changing such attitudes. As the prosthetist enlarges his scope of contacts with the medical profession and therapists, he *must* make the effort to transmit his thoughts intelligently. We sincerely hope that the schools are the catalysts for such activity.

Another function of our school is to impart knowledge gained from the various research programs in progress. This involves many things such

as fitting techniques, fabrication procedures, and special fields of application for prosthetics as with the juvenile amputee. Whatever the subject might be, careful consideration is given to the requirements governing the presentation of the information. When a research department has spent several years investigating a new technique, there is a strong background of experience, and the school is obligated to rely heavily on this foundation. The course is outlined after the teaching staff has gained all possible experience necessary to teach the technique. During this familiarization, often there are further points discovered because of the necessity of organizing the information into teachable form, but usually there are no great deviations. There are very valid reasons for all the steps. During familiarization these must be explored by the teaching staff. Thus, we finally present the course, and from that first one, where knowledge is further increased, we continue with subsequent courses. The growth of information seems never to stop. There are revisions and additions, until three years latter there might be considerable difference from the starting point. This change stems not only from added knowledge gained by the instructors, but every class usually contains ideas which are born during the sessions, or perhaps some zealous student arrives with ideas already tried beforehand.

Thus, we refine the technique but make no changes without having a very firm reason for them. This leads us to discuss now the changes which seem to happen out in the field after the student has attended school. During one of the last certification examinations at which I was assisting, one of the applicants asked me if I knew what technique was being taught on the PTB at Northwestern (he didn't know who I was). Despite the fact that I informed him of my connection with what was taught at Northwestern, he still decided to tell me just what the technique was, and I listened with great interest. There were so many things which I did not recognize; it was very upsetting to learn that the source of this procedure was a former student of ours, and he had been given his certification not more than a year before. He was a man who had performed well, if not outstandingly, while under our watchful eyes.

This, of course, is something which happens from time to time. Once in a while there are some excellent ideas evolving from the continued experience of competent prosthetists in the field. In this instance, however, the departures were apparently not paying off in well-fitted patients. Some deviations are to be expected when the long-term experience begins to indicate that a change in this step or that seems needed. However, when problems begin to appear after a man has attended a school, and he feels he is doing everything exactly as taught; then we feel it is high time for him to communicate with the school. This is one of our areas of responsibility, and we are always most anxious to know of any difficulties arising. We realize that it is often not possible to solve a problem by mail, but the prosthetist owes it to himself and to his profession to communicate persistent problems to his original source of information. If everyone would try to do this, then it should be evident to the thinking person that if his problems were also occurring to several other prosthetists, there would be some action on the part of the school to investigate.

Once in a while we do get letters of this nature, and we generally have some suggestions. If we were to say that we solve most of the difficulties in this way, it would be ridiculous; but the feed-back of information is a vital necessity so that the universities can keep in touch with field activities. As stated above, there must be interchange of ideas between teaching per-

sonnel and practicing personnel. This is the only way for the many fine developments discovered by our associates to find their way back into an improved course for the new students. The seminars held in the various regions should be a means used for the two-way exchange of ideas. The universities have, in the past, attended most of these meetings with presentations. It would be highly beneficial if the practicing prosthetist would organize a course for the universities on how they are using the ideas promulgated by the school.

We here at Northwestern have no desire to be labeled "Ivory Tower." We earnestly want our curriculum to reflect the ideas and growth originating from the entire practicing prosthetic and orthotic profession and to disseminate these ideas along with all research developments. We believe this is the only way for our work to increase in what it has to offer the handicapped.

A Message to All Firms in Amputee Census

To insure the prompt mailing of the census card and to avoid missing certain cases, Dr. H. W. Glattly of the National Academy of Sciences suggests that you adopt the following policy: At the time that you begin your facility record of an amputee, including the stump measurements, you can complete all but one of the data items on the census card, and this is "Date Prosthesis Furnished."

In the future, it is suggested that you *estimate* the date and mail the card, marking your record with the words "Census Card Mailed." It is recognized that the delivery of a prosthesis may be delayed for a variety of reasons. In such instances, the completion of the card may be neglected. The above system will be a convenience to both the facility and to the National Academy of Sciences.

The attention of all firms is invited to the fact that the census cards are serially numbered. The National Academy of Sciences must account for all numbers. Should a card be damaged or incorrectly made out, you are requested to mark it "spoiled" and send it to the Academy so that that particular case number can be accounted for.

The amputee census was initiated October 1, 1961. All new cases, as defined in the census instruction pamphlet, that are serviced by the participating firms since that date should be carded. *It is not too late* to join this cooperative effort of AOPA and the National Academy of Sciences, to obtain certain valuable data concerning the amputee population of this country. Firm owners who have not previously participated in the census are therefore urged to write to the address below for a packet of census materials:

Dr. H. W. Glattly, Executive Secretary
Comm. on Prosthetics Education & Information
National Academy of Sciences
2101 Constitution Avenue, N.W.
Washington 25, D. C.

EDITOR'S NOTE: *The National Amputee Census is a joint project of CPEI, National Research Council, and the American Orthotics and Prosthetics Association. Any prosthetic establishment in the United States is eligible to enroll under this census project.*