

# Newsletter...



## Prosthetics and Orthotics Clinic

Vol. 1, No. 4

Autumn 1977

### Notes and Comments

The quantity of responses and dialogue we have been able to generate in the Newsletter from clinic team members still remains quite low. However, we have been pleased by the increased depth of interest shown by recent respondents to the Questionnaire.

Again, we ask you to send in your responses promptly but by no means feel that you must restrict your comments to the printed questions. We urge you to comment on any subject that would be of interest to you and other team members.

We are also soliciting lead articles

from our subscribers for printing in future additions of the Newsletter. May we have your assistance in this area?

Joseph M. Cestaro, C.P.O.  
Editorial Board

#### "Partial Foot Amputation"

##### Results of the Questionnaire Survey

There were fifteen replies by mail to the questionnaire on management of patients with partial foot amputation that appeared in the Summer 1977 issue of the NEWSLETTER. Ten came from prosthetists, one from a physical therapist, and four from physicians.

The answers and remarks from all but one prosthetist are given below. One prosthetist, Lewis Meltzer of Miami, Florida, took the time and trouble to write a very thoughtful letter which is printed in full after the tabulation of the questionnaires.

1. Do you feel that patients with partial foot amputations require prostheses that extend higher than the distal third of the tibia?

CERTIFIED PROSTHETISTS

- A. No. Ankle high only.
- B. The prosthesis should not be higher than maleoli.
- C. Yes.
- D. Very seldom
- E. Especially true for active people. Low activity people without deformities seem to function well with the least amount of appliance.
- F. Not in all cases, for example, we're using C. Fillauer's AC & PLIC socket w/posterior (6) split for a great percentage of our partial foot amputees.

G. No.

H. I basically avoid terminating a prosthesis on the lower tibia. Often a shoe insert with the filler works fine. If a rigid ant. is used, I definitely do not stop at any point on the tibia.

I. Transmetatarsal or longer - No.  
All others - Yes.

J. If hand users.

K. Yes.

L. No.

M. If full, pain free, weight bearing is possible on the remaining part of the foot - No. If not, then weight needs to be taken higher.

M.D.'S

P.T.

N. Yes.

2. Do you feel that most patients who receive partial foot amputations would function better with a Syme's amputation?

CERTIFIED PROSTHETISTS

A. No.

B. No, as long as the plantar surface can tolerate weight bearing, a partial foot is better than Syme's.

C. No.

D. No.

E. Again active people and children who can possibly avoid bone spurs and eventually develop an endbearing cosmetic BK. Surgery is impor-

CERTIFIED PROSTHETISTS

- F. Yes, the large majority would increase their function and be relatively pain-free.
- G. No.
- H. No. I have seen too many patients function beautifully with partial foot and only a toe filler.
- I. For P.V.D. patients a Symes amputation usually has a better chance to heal and the prosthetic fitting is better. For traumatic amputations as much length should be preserved to increase weight bearing surface and lever arm.

M.D.'S

- J. Yes, but not all.
- K. Not necessarily.
- L. Yes, at least psychologically.
- M. No. A Syme's is much more radical than is often necessary and will not necessarily result in better function.

P.T.

- N. Yes.

3. Do you agree with the author's list of advantages and disadvantages of this amputation?

CERTIFIED PROSTHETISTS

- A. Some.
- B.
- C. Yes.
- D. Yes.
- E. I feel amputation sites for children should take bony overgrowth and foreshortening into account, i.e., disarticulation rather than partial foot types.
- F. Not in its entirety, but generally speaking, yes.
- G. Yes.
- H. Some of them.
- I. Yes we do, however, prosthetic breakdown will still occur regardless which type is fitted.

M.D.'S

- J. No. They are not the indication for the procedure.
- K. ?
- L. Yes.
- M. Partially.

P.T.

- N. Yes.

4. Do you feel that the sole or shank of the shoes or prosthesis should be rigid or flexible?

CERTIFIED PROSTHETISTS

- A. Flexible.
- B. Flexible, to provide easy roll over the often tender distal anterior foot.
- C. Rigid to metatarsal break, flexible distal from this point.
- D. Rigid except for toe flexibility.
- E. The sole should extend the toe break past the end of the amputation, rigid slightly past this point.

CERTIFIED PROSTHETISTS

- F. We think in terms of the SACH foot function using rigid soft tissue support w/flexible forefoot.
- G. Flexible.
- H. Depends on patient's gait, toe off phase especially. Generally rigid to the ball of the shoe and flexible in the toe area.
- I. Usually, a rigid shoe and/or prosthetic foot functions better. However, we do have success using a modified Winnipeg Symes Prosthesis, which is partially flexible.

M.D.'S

- J. Rigid.
- K. Rigid.
- L. Do not know.
- M. It depends largely on the level of amputation, the shoe control which is achieved and the residual ankle function. In general it needs to be rigid proximal to the metatarsal heads and capable of flexing to about 15° under the metatarsal heads when loaded.

P.T.

- N. Rigid.

Sometimes, e.g. when the metatarsal heads are painful or in a very proximal level amputation, it needs to be rigid throughout and with a rocker base. If there is adequate ankle function, and reasonable shoe control on the residual foot, the prosthesis should flex at the ankle too.

5. Please comment if you have experience with the "ankle-foot orthosis" type of treatment mentioned here and described by Fillauer.

CERTIFIED PROSTHETISTS

- A. I have been using the same basic idea for several years with good success.
- B. I have used this on one patient and he was quite pleased.
- C. —
- D. No experience.
- E. No experience. I added another approach to my repertoire.
- F. No experience.
- G. Yes.
- H. I have used the AFO with a toe filler attached a few times recently and am very satisfied with the results.

M.D.'S

- I. Yes, only very limited.
- J. Yes, occasionally useful.
- K. No.
- L. —
- M. No experience.

P.T.

- N. No experience.

6. Would you be willing to contribute to an "atlas" or "catalog" of methods for providing prostheses for partial foot amputations?

- CERTIFIED PROTHETISTS
- A. Yes.
  - B. Yes.
  - C. Yes.
  - D. Yes.
  - E. Yes, although my experience is limited (which is probably the situation 90% of the time). A ready reference such as this may help us all solve the unique problems each of these amputees present.
  - F. Enthusiastically.
  - G. Yes.
  - H. At present I have nothing new to contribute.
  - I. Yes, we would.
- M.D.'S
- J. Yes.
  - K. No.
  - L. Do not feel qualified to do so.
  - M. Yes.
- P.T.
- N. No, not enough experience.

### CONCLUSIONS

It can be seen that although there is a wide variation of opinion about partial foot amputations and prostheses, more than half of the practitioners feel that partial foot amputations can provide better function than the Syme's.

Nearly all of the respondents would be glad to contribute to an "atlas" or "catalog" of methods for providing prostheses for partial foot amputations.

Mr. Meltzer's letter, which follows, seems to sum up the state of the art and is reproduced here in full.

September 27, 1977

### Newsletter Questionnaire

AAOP

1444 N Street, N.W.

Washington, D.C. 20005

The following are the answers to your questions as per your request from the Newsletter Questionnaire, copy enclosed.

NAME: Lewis N. Meltzer, C.P.O.-

1. Do you feel that patients with partial foot amputations require prostheses that extend higher than the distal third of the tibia?

It has been my experience that patients with partial foot amputations occasionally cannot tolerate the Fillauer type orthosis. Yet, for cosmetic purposes, they prefer it rather than something extending above the shoe. I have fitted a few and only succeeded with one. This is after extended trials by myself and the patient. Yet, the two who were not satisfied, preferred to wear nothing and have been lost to follow up. Several years ago I worked with polypropylene or similar AFO's with toe fillers and steel shanks in the shoe, and those seemed to work satisfactorily. I think that Mr. Pritham's idea merits trials. My only concern is cosmetic acceptance when compared to the Fillauer type.

2. Do you feel that most patients who receive partial foot amputations would function better with a Syme's amputation?

This seems like an ambiguous question which I feel I can only answer by saying it would depend on the individual. At the same time, all else being equal, partial foot amputation would be my choice were I to need that type of amputation as I could more easily walk without a prosthesis either around the house or at night.

3. Do you agree with the author's list of advantages and disadvantages of this amputation?

Yes.

4. Do you feel that the sole or shank of the shoes or prosthesis should be rigid or flexible?

Here, again, this would depend on the patient as I have seen patients desiring no prosthesis.

5. Please comment if you have experience with the "ankle-foot orthosis" type of treatment mentioned here and described by Fillauer.

The Fillauer method I have tried has included a section of Silastic R.T.V. in the anterior distal socket for comfort and total contact. This is laminated over the cast rather than after the prosthesis is made. With this, I still have had only one satisfied patient. The other two required several attempts at fitting and yet the patients were not satisfied.

6. Would you be willing to contribute to an "atlas" or "catalog" of methods for providing prostheses for partial foot amputations?

I would be willing, if I felt I had something specific to offer as an alternative, but I have not found it to date.

Sincerely,

Lewis N. Meltzer, C.P.O.