

Consumer concerns in prosthetics

H. C. CHADDERTON

The War Amputations of Canada, Ottawa

Abstract

Surveys and questionnaires were sent to 3,400 upper limb and lower limb amputees ranging in age from 18 to 72. Replies were received from 2,176 (64%). The major points brought out by the survey are presented and discussed.

Amputee concerns

Surveys and questionnaires were sent to 3,400 amputees ranging in age from 18 to 72. The causes of amputation were divided on a percentage basis as follows:

Trauma	55%
Congenital	20%
Disease	15%
Tumour	10%

There was no apparent difference in the replies in any group. The major concerns of the respondents (64% in all) together with some qualifying notes follow:

1. Lack of information. The only contacts which the amputee has are with the doctor or the prosthetist. The amputee appears to be asking for an independent source of information (such as bulletins by manufacturers and clinics) dealing with:

- (a) New prostheses
- (b) Modifications to existing prostheses
- (c) New fitting techniques.

Note

Is there any reason why the amputee should not regard his prosthesis in the same way as he regards other consumer (durable) goods such as automobiles? In the latter case the product is advertised publicly.

2. The amputee often complains of lack of knowledge of new prostheses by the medical profession.

Note

Remedial action could well be the function of ISPO, assuming the premise is correct.

3. The amputee often lacks a source of information from other amputees concerning ways and means through which he/she could learn to live with his/her disability. This concerns such mundane matters as the washing of stump socks and the use of soft versus hard-soled shoes.

Note

ISPO might be able to produce source material which could be distributed by veterans organizations, and other groups representing the disabled.

4. Another major concern is the lack of adaptive equipment for recreation.

Note

The development of facilities for amputee skiers is a positive indication that, if the equipment is available, the amputee can be encouraged to engage in sports.

5. Relationships with the prosthetist.

Note

We have carried out in-depth studies of this matter in Canada. It may be that the situation does not exist elsewhere, although, for the past few years, we have been making arrangements to have our personnel fitted in the United States, and the same situation seems to exist there. The problem seems to be that the amputee is more-or-less intimidated by the prosthetist. He or she may feel that the socket does not fit or that the alignment is wrong but is afraid to speak up on the matter. The remedy seems to be two-fold. Firstly, prosthetists should be encouraged to elicit greater response from the amputee; secondly, amputees should be

All correspondence to be addressed to Mr. H. C. Chadderton, Chief Executive Officer, The War Amputations of Canada, 2277 Riverside Drive (Suite 210), Ottawa, Ontario, K1H 7X6, Canada.

encouraged to make their views known during the fitting stages.

6. Weight of prosthesis. The amputee is bewildered in this area. Some like to feel a "little weight"; others have the opinion that a weighty prosthesis will tire them easily.

Note

Possibly some physiological studies have been made and information could be disseminated on this subject.

7. Feet. Our surveys indicate that, very often, an amputee wearing a SACH foot does not know whether the heel insert is soft, medium or hard. He is usually unaware that there are other types of feet available. Generally, he takes what is given.

Note

It would seem that there is room for an optional fitting technique in this area so that he or she could try various feet and decide which one is most compatible with gait, use, etc.

8. Soft sockets versus hard sockets for below-knee amputees. Canadian amputees from World War II indicate a decided preference for a soft socket. They seem to feel better about a soft socket and consider they can tolerate more weight with less discomfort. On the other hand, that they are very often given no option but have to abide by the preference of either the doctor or the prosthetist. Replies from other groups indicate almost total ignorance on the subject.

9. Upper extremity amputees. This is obviously a neglected group. (Recently the then Canadian Minister of Veterans Affairs, who was a double amputee (above-knee and above-elbow), was questioned as to why he was wearing a formidable leather harness, when suction sockets are being fitted quite regularly in Canada for above-elbow amputees. He stated that he had no information on the subject.) It may seem strange, but our surveys indicated that many World War II above-elbow amputees, who had never worn a prosthesis, still have *not* become used to the loss of cosmesis involved in the empty sleeve.

Note

An attempt should be made to see that upper limb amputees are encouraged to be fitted with cosmetic limbs, particularly now that there are light designs which do not require extensive harnessing.

10. Myo-electric hands. The replies were enthusiastic, but the amputees lacked knowledge. There is a tendency among the older below-elbow amputees to consider that they are "too old" to be fitted with myo-electric hands.

Note

Our experience has proved this to be false. Moreover, when fitted, there is a decided upward swing in morale.

11. Shoes. Great concern was shown for the fact that it is becoming increasingly difficult for a leg amputee to purchase stock shoes in view of the heel height and difficulty in modifying heels which are made on a "one piece construction" last.

Note

There seems to be a great need to develop a prosthetic foot with adjustable heel height.

12. Controls for above-knee amputees. Wearers sometimes found that a heavy leg, particularly one with swing and stance phase controls, gave better function. They question whether the additional energy required to lift a leg of this nature during the swing phase outweighs the advantages of better function.

Note

It would be helpful if the amputee had available reference material stating a definite opinion on the subject, one way or the other.

13. Sequelae. The surveys indicate that there are decided sequelae to amputation including advanced arthritic changes in the pair of an amputated limb; lumbar and cervical problems, gastric disturbance, etc.

Note

The question arises as to whether this should be treated as a problem arising from amputation and, more importantly, could a more comfortable fitting eliminate or correct the situation.