Stump Socks and Amputee Comfort

By WILLIAM B. SMITH, C.O.
The Knit-Rite Company,
Kansas City, Missouri

The only qualified source of information on stump socks available to an amputee is his prosthetist. Consequently, it is the professional responsibility of the prosthetist to exercise every care to see that each amputee is fitted satisfactorily with the proper kind and weight of stump socks. This care begins with the individual considerations in selecting stump socks and extends through instruction in the proper use and care. Occasionally, re-evaluation may be required, due to changes in the stump, a change to a different type of prosthesis, stump sock problems, or even variations in the amputee’s weight.

Sources of information for the prosthetist are also somewhat limited. An article, “Stump Socks — Their Manufacture, Use and Care,” by Lee J. Fawver and Ted W. Smith appeared in the August, 1951 OALMA Journal.* The manufacturers wholesale stump sock price list covers information required for various irregular and special stump socks. Since many unusual and special cases and problems have already been encountered by the manufacturer, the prosthetist should feel free to consult him on stump sock questions. The comfort of your amputees is of vital concern to all.

Pointers for Better Stump Sock Wear and Greater Comfort

Body weight and shrinkage—Weight fluctuation may, on occasion, tend to let the amputee sink a little deeper into the socket or rise a little out of the socket. A change in the weight or number of stump socks often proves to be an effective remedy. Many times a new amputee is furnished with a quantity of both 3-ply and 5-ply wool stump socks. Beginning with 3-ply, and later changing to 5-ply is helpful in accommodating some shrinkage.

Size—When stump socks are too large, the problem is usually recognized quickly. However, stump socks which are too small also may be a problem contributing to discomfort and stump sock damage.

* “Stump Socks—Their Manufacture, Use, and Care” is reprinted in this issue of the Journal. See pages 51-56.
In recent years, many amputees have changed from a conventional to a PTB type prosthesis. This change calls for a re-evaluation of stump sock requirements:

**Size**—Often the length of the stump sock will be reduced considerably, with a corresponding change in the top width, be sure to check the toe width for it may not change proportionately, if at all. Special size ranges have been developed for PTB wearers and are listed in the Stump Sock price lists. (Note: there are 3 to 4 toe widths for each top width, and special sizes can always be knitted).

**Weight of stump socks**—Has the amputee been wearing one or more 5-ply stump socks? Could his requirements be better met by making a change?

**DownyWool**—Often a PTB wearer will use only one DownyWool (3-ply wool) stump sock. It must be recognized that the sock in such cases will not wear as long as when 5-ply or more than one sock is used. It is helpful to call this to the amputee’s attention when the change to a PTB is first made.

**Supply**—It is particularly important for a PTB wearer to maintain an adequate supply of good stump socks. Enough to enable him to (1) wear a fresh sock each day, (2) store the socks several days after washing and (3) to wear them in rotation. This provides a “resting” period and allows the resiliency and elasticity to return to the wool fibers. The total contact, closed socket has substantially less ventilation than provided in a conventional prosthesis. For this and other reasons, the stump sock is called on to do double duty. Note: Washing instructions are printed on the envelope containing each stump sock.

A callus is likely to cause trouble by cutting through the stump sock and is one of the first things to check for if stump sock damage develops. Similarly, rough areas and concentrated pressure points in the socket can cause stump sock damage. Leather lined sockets tend to reduce stump sock wear because of the greater friction (especially when only one sock is worn).

**Movement of the stump** in the socket and friction are directly related to stump sock wear and many stump problems. It may be helpful to note that this movement may take place:

1. between the socket surface and the stump sock,
2. between the stump sock and the stump.

**Heated wax or paraffin**, painted on the inside of a PTB or leather lined socket, provides a slick perspiration resistant surface. This slick surface reduces friction, prolongs stump sock life and often helps meet stump problems. Note: Heat the socket, both before and after painting, with a heat gun to obtain penetration. A short period of wear by the amputee will result in a smooth, high gloss finish.

The “Reprint Article,” mentioned previously, covers other points, such as wearing the stump sock inside-out (that is, the vertical ribs next to the stump). This often helps to reduce stump irritation, particularly in hot weather.

It is difficult to place enough emphasis on the importance of stump socks in amputee comfort, and the role of the prosthetist in insuring the maximum comfort through fitting and instruction in use and care.

Have you encountered any unusual cases or problems regarding stump socks, or found a particular technique helpful? We would like to hear about it, and pass it along to other prosthetists.

PAGE 50

MARCH, 1965