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LETTER TO THE EDITOR

To the Editor:

I have just had the opportunity to read the June 1998 *Journal of Rehabilitation Research and Development* Vol. 35 No. 2.

This is in relationship to the subject "Material properties of commonly-used interface materials and their static coefficients of friction with skin and socks" [pp 161-176 by Sanders, Greve, Mitchell, and Zachariah].

Inasmuch as I have been wearing two Symes prostheses for over fifty years, I have had some actual encounters with this.

I find that when the skin and bones make contact with the very hard prosthesis, severe pain is encountered. This is a result of compression friction and not proper fitting of the prosthesis.

1. When the form is taken of plaster of Paris, no allowance is made for full downward pressure of the body weight on the stump.
2. When the second form is taken, the fitting loses again the contour of the stump.
3. By this, the form of the prosthesis is now out of line.

4. In order to establish the correct pressure spots of bone and skin, an x-ray is needed to show where the defects are.
5. At this time, also, an insert should be fabricated as a liner (i.e., thick polyurethane is too heavy). A soft material that will absorb the shock of the daily pounding is needed. A gage should be used to establish the pounds per square inch showing how much weight bearing is being taken, both standing and walking.

Conclusion: To prevent severe skin irritation and burns as a result of this, all prostheses should have a sheath of sponge or some type of material to offset these problems.

Sincerely,
Paul F. Ziegelhofer
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