

Modification For Pregnancy of a Hip-Disarticulation Prosthesis

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A twenty-two-year-old patient recently was referred to us by her obstetrician for a new fitting to accommodate pregnancy and sustain ambulation until as near delivery time as possible.

History of the patient revealed amputation at the age of nineteen due to a malignant bone tumor. Six months later she was fitted with a Canadian-type prosthesis offering a free hip and free knee. This prosthesis had been well accepted by the patient and used continuously, although it was now quite ill-fitting and unstable. In the interest of safety the patient was again using crutches.

I was unable to locate any information on accommodating a prosthesis for pregnancy in an amputation of this level, and assumed the only course was for the patient to discard the prosthesis during the latter months and become inactive.

However, the challenge to fulfill the obstetrician's request was accepted. As the patient's present prosthesis was in good condition mechanically and cosmetically, I set out to fabricate a new socket only. The following changes were made in the usual technique of fabrication:

- 1) The entire anterior wall of the socket was removed to a point just medial to the anterior superior spine.
- 2) Extra structural material was placed in the lateral walls to insure constant contouring of the fitting about the iliac crest.

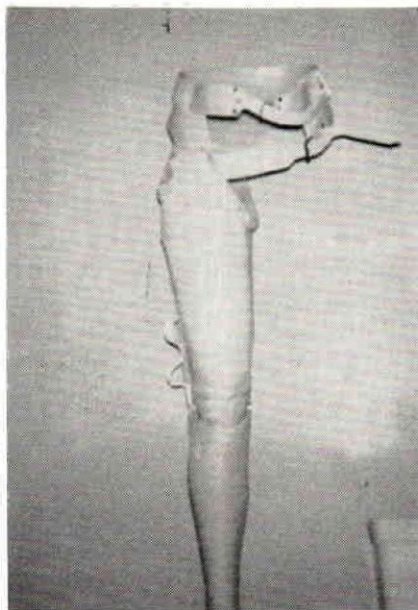


Figure 1.

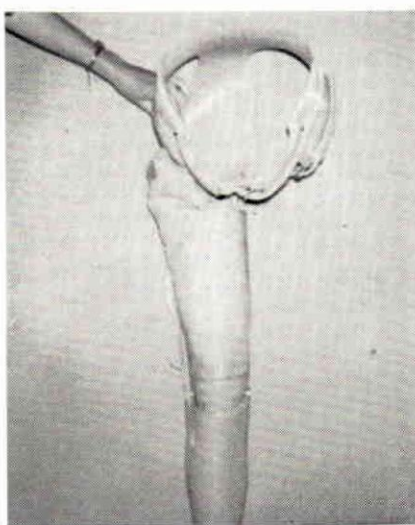


Figure 2.

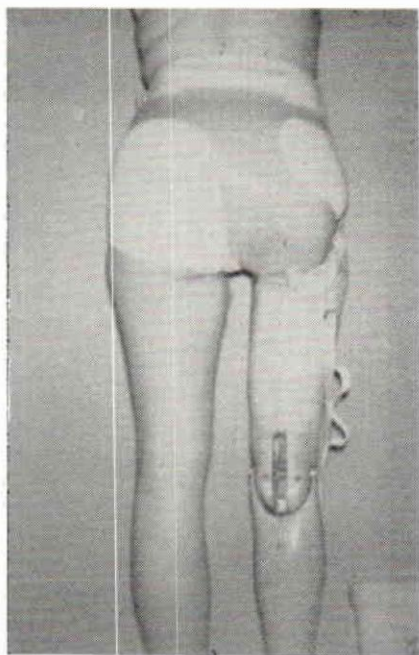


Figure 3.

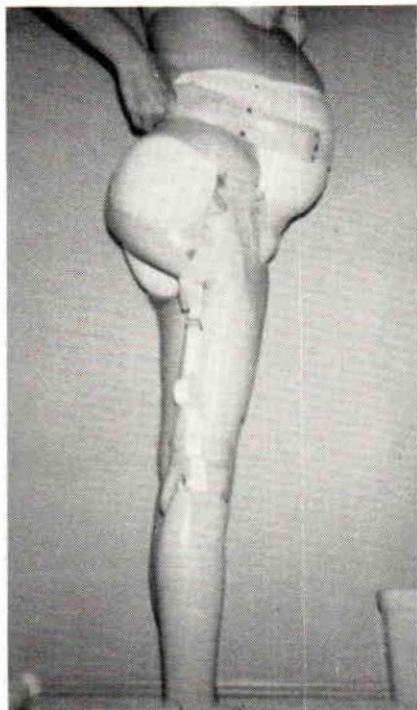


Figure 4.

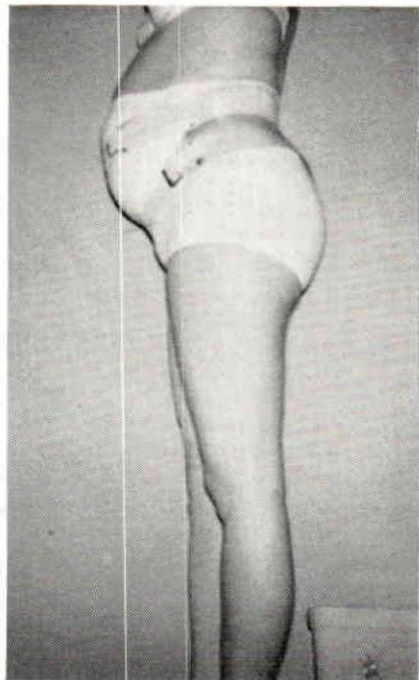


Figure 5.

- 3) A large opening was made in the lateral posterior wall of the socket to accommodate the increase in weight of the amputated side without distorting the fitting of the skeletal areas.
- 4) Padded metal bars were added to the lateral walls and contoured very loosely around the lateral aspect of the abdomen. A strap across the ends of these bars held the socket firmly against the iliac spine without forces on the abdomen.
- 5) A wide padded strap across the socket just superior to the anterior pubes completed the anterior wall system. This wide strap was found to be very comfortable and offered support to the abdomen.

CONCLUSION

The modification of the prosthesis was fitted at 4½ months of pregnancy, and was used continuously until the evening of January 23, 1963. The next morning the patient gave birth to a very healthy 7 pound 13½ ounce baby girl. Delivery was normal with no complications.

One week later the side bars and wide anterior strap were removed and retained for possible future use. A soft front was installed and supported by three 1" dacron straps using Velcro for fastening. Ambulation continues at the present time.

The pictures accompanying this report were made at twenty-eight weeks of pregnancy. The prescription was filled to the great satisfaction of the amputee.

While such a case as that described may be rare, the success obtained is indeed gratifying.

\$1,000,000 Contribution to World Rehabilitation Fund

To help offset the loss of 300 used but serviceable artificial limbs and braces destined for underdeveloped countries, the Smith Kline & French Foundation has made a grant of \$1,000.00 to the World Rehabilitation Fund, Inc. The 300 artificial limbs and braces, collected as a community project by the United Cerebral Palsy Association of Philadelphia and Vicinity, were destroyed in a fire at the Goodwill Industries warehouse.

The supplies had been collected by the Goodwill Industries from fire stations where they had been left by contributors and were awaiting transfer to the CARE warehouse for overseas shipment.

Howard A. Rusk, M.D., President, World Rehabilitation Fund, Inc., said "We are most grateful to the Smith Kline & French Foundation for this spontaneous gesture to help offset the losses resulting from the fire."

Thus far, 16,000 used by serviceable artificial limbs and braces have been collected by the World Rehabilitation Fund and other cooperating agencies for shipment to 23 nations.

Persons wishing to contribute used braces and limbs to the continuing drive can contact Mr. Hugh Pendexter, Jr., United Cerebral Palsy Association of Philadelphia and Vicinity, 66 North Juniper Street, Philadelphia 7, Pa. (LOcust 8-3580).