

FITZSIMONS ARMY MEDICAL CENTER
Physical Therapy Section
Denver, Colorado 80240

3 July 1975

I have reviewed the literature and found only one article
anthropological study of the AK which was in the Spanish Journal of Medical
Science. Has there I heard of anyone in the U.S. using this technique to
evaluate AK prostheses. Do you know of any articles or of any other facility
using this?

Colonel Gerald Mayfield
Orthopedic Service
Tripler Army Medical Center
Honolulu, Hawaii

Dear Col. Mayfield:

It has been over a year now since we began using the AP 14" x 36"
X-ray at FAMC to evaluate the prosthetic fit of our AK amputees.
I thought you might be interested in knowing how things have pro-
gressed since you left.

As you know, Ivan is no longer employed at Fitz, however, I have
continued to work very closely with him on his special alignment
technique. We have X-rays on 20 patients fitted with the standard
alignment and out of these, 16 have either neutral or abducted femurs
as measured from the X-ray. We are not sure if this measurement is
very reliable however, because of the many variables present, especially
the leg length discrepancy. Many of the X-rays show a leg length
difference between the prosthesis and round leg and to compensate for
this we have been measuring the femur angle by placing the stationary
arm of the goniometer along the apex of the 2 heads of the femur and
the movable arm down the center of the femur. We would appreciate any
comments you might have about this measurement.

We have fitted 24 patients with Ivan's special alignment which he
describes as a line that runs from the head of the femur through the
center of the knee, through the center of the foot with the end of the
femur intersecting this line. We feel this line or "Long's Line" is
correct and will allow the amputee to bring his foot in and achieve the
adduction we want.

We are very excited about the favorable results we are getting with this
alignment and plan to continue working on it. Unfortunately our follow-
up on many of the patients who live outside the Denver area has not been
adequate. We are in the process of compiling the data we have collected
and hopefully write some articles soon. I have continued to update the
chart you started here last Fall.

We would be very interested in any comments, suggestions or questions you
might have. I have enclosed a copy of the 10 points we look for in the X-ray.

I have reviewed the literature and found only one article related to Roentgenological study of the AK which was in the Upsala Journal of Medical Science. Nor have I heard of anyone in the U.S. using this technique to evaluate AK prosthesis. Do you know of any articles or of any other facility using this?

Sincerely,

CORNELIUS J. SCANLON
CPT, AMSC
Physical Therapy Section