

Background - The cardiovascular system has probably received the greatest largest amount of study of any of the body's systems in space flight.

Two major ^{physical phenomena} ~~changes~~ ^{inherent to} aspects of weightlessness produce significant changes in the CV system which are detrimental to normal function on return to earth 1. shifts of fluid ^{& loss} and 2. loss of ~~metr~~ major metabolic loads through loss of locomotor function. Another factor may play a significant role, neurological adaptation, but this has not been studied to date.

In spite of ~~studies~~ the emphasis on the CV system there is still little known about the details of the changes in it nor of their effects. We know for example that fluid is lost from the legs but not ^{the} its time course of the loss, nor the exact amount of fluid (water) lost, nor the nature of fluid distribution during post flight orthostatic stress.

By ~~adding~~ combining several studies it is possible to obtain a better picture of the changes taking place hence eg. measuring fluid distribution in the legs ~~and~~ during the stand tests when BP & HR are also being

measured or by combining fluid intake/output,
c study of leg volume and total body water.

The rationale and results of these
individual studies will be described in the sections
which follow.

1- study deleted