

1969-2. Logsdon, DF, Green, JF, Harper, JW., **Reproducibility of Repeated Total Body Water Measurements with Tritium**, SAM-TR-69-36, July 1969.
location: Internal Medicine Branch, Brooks AFB
subjects: data from six representative subjects are shown.
dates: see DD 1473 form
RAM dose: single dose of 250 μ c of ^3H
Assess: Radioisotopic dilution technique tracer study.
 For a single dose of 250 μ c of ^3H , the total body dose is 19 millirem.
Summary: Tests the reproducibility of this methodology.
 See attached DD 1473 form for abstract

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13. ABSTRACT The reproducibility of repeated measurements of total body water (TBW) in the same individual, by means of an isotope technic, was dependent on the percentage clearance of the isotope per week and the interval between determinations. Studies of six normal subjects, with percentage clearances ranging from 41% to 80% per week, showed that a sample-to-background counting rate ratio of at least 2:1 was necessary to obtain reproducible values. The variance was found to be about 1%, or ± 0.5 liter. The 2-week interval was the minimal time interval which gave reproducible values for individuals having a percentage clearance within normal limits (45% to 95%).			