

NOMOGRAM FOR ESTIMATING NORMAL LIVER WEIGHTS

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A nomogram was constructed by which the normal weight of a patient's liver can be estimated from the patient's height and weight.

One of the signs indicative of liver damage or malfunction is significantly abnormal weight of that organ. Liver imaging provides the means by which the actual weight of a patient's liver can be estimated (1,2).

The normal liver weight, needed for reference, has been given graphically as a function of body surface area by DeLand and Wagner (3). In turn, the body surface area is given as a function of body height and weight by the DuBois formula (4): $\text{Area (m}^2\text{)} = 71.84 (\text{height in cm})^{0.725} (\text{weight in kg})^{0.425} \times 10^{-4}$. Thus, to the extent that these relationships are valid, it becomes possible to calculate the normal weight of a patient's liver simply from knowledge of his height and weight.

The actual calculation, although easy in principle, is somewhat tedious. To facilitate the process, we have constructed the nomograms shown in Figs. 1 and 2. If a straightedge is placed at the proper points

on the outer two scales, the normal liver weight is given by the intersection of the straightedge with the middle scale. The two nomograms are for use with metric and English units, respectively, but both give the liver weight in kilograms since the actual weight of the liver will probably be calculated (1,2) in kilograms.

REFERENCES

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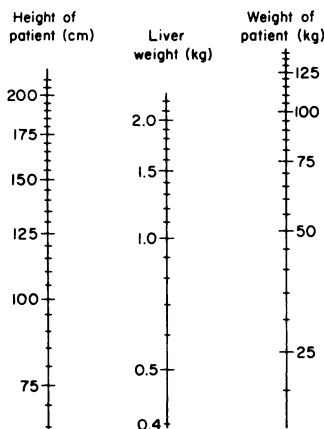


FIG. 1. Nomogram for use with metric units.

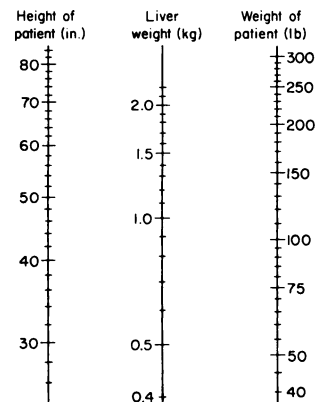


FIG. 2. Nomogram for use with English units.