

AN EXPERIMENTAL AND CLINICAL STUDY OF  
THE VALUE OF PHENOLTETRACHLORPHTHA-  
LEIN AS A TEST FOR HEPATIC FUNCTION.

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In this investigation an effort has been made to determine [327]  
whether the quantity of phenoltetrachlorphthalein excreted  
by the liver following its intravenous administration affords  
an index of the functional capacity of the liver. The specifi-  
city displayed by the liver in the excretion of this dye, which  
is analogous in every way to that exhibited by the kidney  
towards phenolsulphonephthalein, strongly suggests possibili-  
ties in this connection. Quantitative studies of the phthalein  
output in health and in liver diseases (clinical and experi-  
mental) have therefore been undertaken.

THE FUNCTION OF THE LIVER IN HEALTH.

The liver plays an important rôle in the general nutrition  
of the body. No anatomical or functional differentiation of  
liver cells exists, all being identical as far as can be de-  
termined. Three functions of liver cells are definitely  
established: (1) The glycogenic function, relating to car-  
bohydrate metabolism. This consists of (a) the conversion  
through enzymatic activity of monosaccharides (dextrose,  
levulose and galactose) brought to the liver cells by the blood,  
into glycogen, a polysaccharide closely related to starch; (b)  
the temporary storage of glycogen as such, until (c) the re-  
conversion of glycogen by liver enzymes into dextrose as need  
arises for sugar throughout the body. (2) The formation