EXPERIMENT #17. NEPHROSIS

Protein loss in the urine is usually negligible. But, it can go as high as 30 g/day in renal disease. Nephrosis can be simulated by setting EXPRB to .02 (g/min). Follow the consequences for 30 days.

What are the total volume changes?

What fraction went to the cells? to the interstitium?

to the plasma?

How much did lymph flow increase in nephrosis and what effect did this have?
Notes on the Use of HUMAN–80 Student Manual Experiments in web-HUMAN

Essentially all HUMAN-80 experiments run perfectly in web-HUMAN. Nevertheless, those using the HUMAN-80 experiments with the current web-HUMAN model should be aware of certain minor compatibility issues and limitations.

What is HUMAN–80?: There have been multiple past versions of the HUMAN model of which web-HUMAN and HUMAN–80 are but two. Human–80 was a version of the HUMAN model designed to run on desktop PC’s. Although both versions of the model behave virtually identically physiologically, they obviously differ vastly in how the user interacts with them. This means that those parts of a HUMAN-80 experiment instruction sheet that are user-interface specific are not necessarily fully compatible with web-HUMAN.

Adapting HUMAN–80 Manual experiments to web-HUMAN:
Essentially all HUMAN-80 experiments run perfectly in web-HUMAN. Just follow Dr. Randall’s instructions step by step.

- wherever possible the text of these exercises has been edited or annotated to increase compatibility of the instructions with web-HUMAN. Thus references to commands that differ between the two versions have been updated either by editing or by indication with a commented superscripted symbol (* or #).

- experiment numbers in HUMAN-80 DO NOT MATCH those in those in web-HUMAN. To create your own tabular output format simply load web-HUMAN experiment #1 and follow Dr. Randall’s instructions using View output: to create your own data tables.

- users should note that HUMAN-80 had no graphic output, only tables. In web-HUMAN you can choose to graph by simply selecting <graph> instead of just <text> below each variable in the View output: table.

- HUMAN-80 instructions sometimes ask for users to look at more than six variables. To do so simply rerun the experiment with the additional variables displayed or use the <View Variable> option to obtain a value for a variable that is not in the tables.