

EXPERIMENTS ON RENAL FUNCTION IN HUMANS

Joan Kemp, Dept of Surgery, Western Infirmary, Glasgow, G11 6NT
Email: j.kemp@clinmed.gla.ac.uk

Summary - maximum 5 stars

Ease of Installation	★★★★★
Ease of Use	★★★★
Quality of Interface/Navigation	★★★
Quality of Content/ Visual Appearance	★★★★
Clarity of Learning Objectives	★★★★
Fulfilment of Learning Objectives	★★★★
Accuracy of Content	★★★★★

The main objective of the program 'Experiments on Renal Function in Humans' are to demonstrate

- the effects of water loading on urine flow and urine and plasma electrolytes
- the effects of 4 diuretics (Acetazolamide, Amiloride, Hydrochlorthiazide and Bumetanide) on urine flow and urine and plasma electrolytes, real data is provided in graphic form from healthy male subjects by providing real data from actual subjects which the student can

then work on. For each experiment, data are presented graphically for plasma electrolyte and creatinine concentrations and plasma osmolality and also for urine electrolytes, creatinine output, total solute output and urine osmolality and flow.

One set of graphs shows data from water loaded subjects onto which control data may be superimposed. The other sets of graphs show data from diuretic subjects onto which water loaded data may be superimposed for comparison.

The program is easy to load from 3 floppy discs and installs itself. It is very simple to use and is certainly a far easier way of obtaining data than trying to organise a group of students to take part in an original experiment. However, despite its ease of use, I found the program a little frustrating in that you need to frequently switch from screen to screen, or from graph to graph. I felt that it would have been useful to be able to print graphs off for comparison

and for answering questions, but there are no printing facilities.

Several interactive questions accompany each graph, with a useful 'help' button giving formulae and hints. The questions are a useful way of gaining insight into what is happening during the experiments.

The documentation is brief but adequate, though I think that a little more background information would have been helpful and would add to the value of the package as a teaching resource.

In conclusion, this program provides a useful source of experimental data for students and teaching staff, with nicely drawn graphs and reinforced by relevant questions.

Publisher:
Sheffield Bioscience Programs

Distributor:
Sheffield Bioscience Programs,
5 Woodlands Green, Harrogate HG2 8QD
Tel: +44 (0)1423 888514