The development of enzymatic, portable, non-expensive kits for glucose dosage allowed this test to be conducted outside the laboratory. Besides, the increasing number of diabetic patients making use of these kits turn their prices quite affordable, nowadays. In a previous work we have reported the use of glucose kits inside the classroom, for the Glucose Tolerance Tests determination, in association with aerobic exercises, as a starting point to teach metabolism (Alves, A.A. et al., Annals of the XXIX SBBq Meeting, 2000). That experience has been successfully employed in the last five years with students from careers such as Biology, Physical Education, Nursing and Medicine, at Unicamp. We now extend those observations to the use of sucrose, instead of glucose, as the sugar given in overcharge at the beginning of the experiment (1.15 and 2.3 g/kg weight for glucose and sucrose, respectively). Portable reflectance meters provided accurate enzymatic measurement of glucose with a drop of blood. Since the enzyme (glucose oxydase) is specific for glucose (and not for fructose, for instance), the plots obtained after sucrose intake are very similar to those with glucose. The advantages in using sucrose are: it is cheaper than glucose and suitable for the use outside the lab (easy to find) and it does not induce the characteristic unsettled stomach/nausea caused by glucose. Besides, the use of sucrose does not invalidate the classical use of the test, since sucrose is cleaved by invertase (giving rise to glucose and fructose) in the duodenum, where glucose units can be absorbed, giving rise the blood profile evaluated in the tolerance test.