

# Course work on real-world application of mathematical concepts to health and well...

[Health & Medicine](#), [Body](#)



Mathematics and health are inseparable as mathematical concepts are always used in medicine. Such concepts include the calculation of medication that a patient requires, and the determination of prescriptions, among others.

In the determination of prescriptions, doctors must carry out mathematical conversions from one unit to the other. Prescriptions are always given in milligrams per kilograms. The patient's weight is therefore the chief determinant of the amount or quantity of medicine prescribed by a doctor. In most cases, the patient's weight is given in pounds; the doctor must therefore make a conversion of this weight from the given pounds to kilograms. Based on the patient's weight in kilograms, the doctor can determine the amount of medication in milligrams of the medicine per kilogram of the patient.

When nurses or doctors administer medication to the patients, mathematical concepts like ratios and proportions are made use of. The patient's body size helps the nurse or the doctor to decide appropriately on the dosage that the body is able to handle devoid of risks fears of complications. Proportions and ratios also help the medication administrator to determine the duration that the medication takes in the patient's body before another dosage is administered.

The above mathematical concepts fall under measurements. It is only through measurements that a doctor or a nurse can appropriately determine the weight of the patient. A person's weight plays a major role in health and wellness as too much weight results into complications. After measuring a person's weight, the doctors can appropriately advise the person to reduce

or maintain the weight as this helps the person to avoid the weight associated risks.

## Reference

“ How to Solve Nursing Math Conversions.” Retrieved at [http://www.ehow.com/how\\_8210115\\_solve-nursing-math-conversions.html](http://www.ehow.com/how_8210115_solve-nursing-math-conversions.html)

Natasha Glydon. (2010). Math central: Medicine and Math. Retrieved at <http://mathcentral.uregina.ca/beyond/articles/Medicine/med1.htm>