

Supplementary Material, Lab 6: Energy in Food

Which type of nut is best for a new energy bar?

As you decide which nut will be best for your energy bar be sure to consider how much of each type of nut would need to go into your bar and how much will that cost.

Type of Nut	Cost per pound
Peanut	\$2.00
Cashew	\$5.92
Pecan	\$7.73
Almond	\$8.88
Walnut	\$10.43

Your energy bar should be made so that it stays together and maintains its shape. Many energy bars use honey or maple syrup as a binding agent to help the pieces stay together. The honey or syrup also adds flavor to the energy bar. It takes about 15 grams of honey or syrup per 100 grams of nuts for the energy bar to stay intact.

Binding Agent	Calories (per 100g)	Cost (per 100g)
Honey	304	\$0.44
Syrup	260	\$0.60

In order for your energy bar to be useful, it should supply enough calories that will provide energy to complete at least 30 minutes of exercise. Below is a table of various exercises and how much energy is used during 1 hour of that activity.

Activity	Calories (per hour)
Running (6mph)	600
Walking (2mph)	200
Biking (12mph)	480
Swimming	420
Dancing	220
Aerobic (high impact)	500
Martial arts	700
Jumping rope	850
Lifting weights	365