

Nutrition and Performance
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Nutrition can be defined as the science of food and its interactions in the body involving intake, digestion, and metabolism. Proper nutrition is essential for the production of energy for work and exercise, and the development and maintenance of the body. To function at an optimal level the athlete has to consume the right foods and nutrients.

The coach needs to educate the athlete about proper nutrition and the role it plays on performance.. The days are over when athletes think they can consume empty calories and perform at a high level. There is a great amount of research in the field of exercise science that states, “ nutrition and athletic performance go hand in hand”.

The athlete must see his/her body as a finely tuned machine.
Would the athlete put cheap low octane fuel in the tank?

What are these food fuels and how do we determine the amount of calories required on a daily basis?

In this workshop, the participants will learn how to calculate the totals number of calories required based on the athletes height, weight, age, sex, and activity level.

The participants will also become familiar with how many calories are consumed on a daily basis and the percentages of carbohydrates, fats, and proteins through a dietary worksheet.

A hand out will be included that shows the best foods that are high in the fuels we need for energy and performance.

Instructions for Calorie Calculator

Step 1 Using a pin as a marker, locate you actual weight on lnie1.

Step 2 Setting the edge of a ruler against the pin, swing the other end to your height on line6.

Step 3 Remove the pin and place it at the point where the ruler crosses line 2.

Step 4 Keeping the edge of the ruler firmly against the pin on line 2, swing the right-handed edge to your sex and age on line 7, using the age of your nearest birthday for the purpose.

Step 5 Remove the pin and place it where the ruler crosses line 3. This gives you the calories used daily (in twenty-four hours) if you are resting and /or fasting,

Step 6 To the basal calories thus determined, add the percentage above fasting and resting for your type of activity, using the Activity Guide, Leaving the pin in line 3, swing the edge of the ruler to the right to the proper percentage on line 5. Where the ruler crosses line 4, you will find the number of calories necessary to maintain you your present weight.

1. RESTING METABOLISM

- -Sleeping

$$\frac{\quad}{\text{Total hrs}} * 1 = \quad$$

2. SITTING OR STANDING STILL

- Personal grooming
- In class
- Watching TV/movies
- Listening to music
- Talking to friends
- Doing homework
- Watching school sports
- Or presentations
- Driving a car
- Drawing or painting
- Evening babysitting
- Playing pool
- Sitting at meals

$$\frac{\quad}{\text{Total hrs.}} * 2 = \quad$$

3. LIGHT ACTIVITY

- Walking (slow to normal pace)
- Doing your house work (your room)
- Dishes by hand, power lawn mowing)
- Labor work (sewing typing)
- Machinery tool operating
- (Carpentry, metalwork)
- Working (sales clerk, gas station attendant)
- Sports with light activity
- Dancing

$$\frac{\quad}{\text{Total hrs}} * 3 = \quad$$

- Daytime baby sitting

4. MODERATE ACTIVITY

$$\frac{\quad}{\text{Total hrs}} * 4 = \underline{\quad}$$

- Walking (normal to fast pace)
- Energetic house work (cleaning windows, floors, furniture)
- Active sports (recreational tennis, cycling, downhill skiing, (not including weight time in lines) P.E. class, cheerleading, skateboarding, swimming, (20-30 yards/min), skating

5. HIGH ACTIVITY

$$\frac{\quad}{\text{Total hrs.}} * 5 = \underline{\quad}$$

- Competitive badminton, volleyball, tennis
- Skating (vigorous)
- Jogging
- Cross country skiing
- Football
- Basketball
- Squash soccer

6. VERY HIGH

$$\frac{\quad}{\text{Total hrs.}} * 6 = \underline{\quad}$$

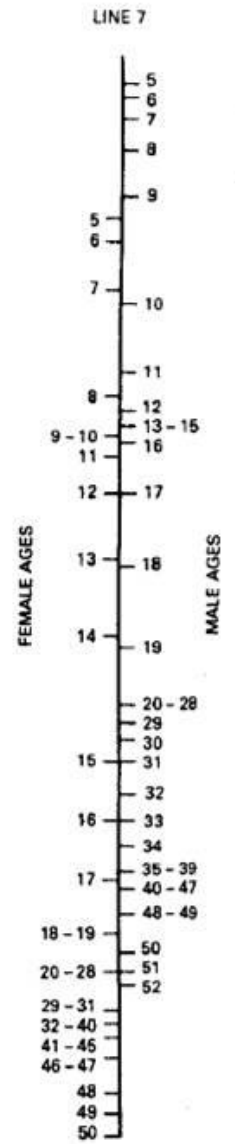
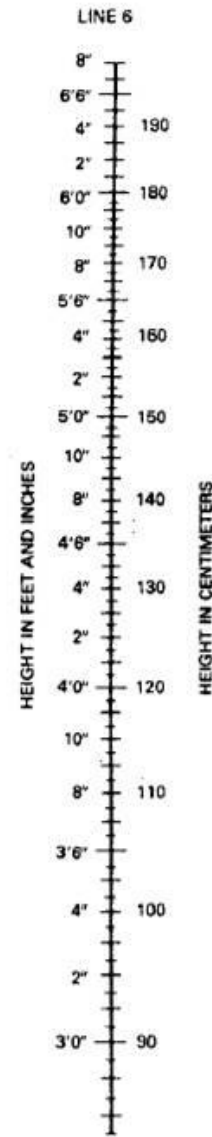
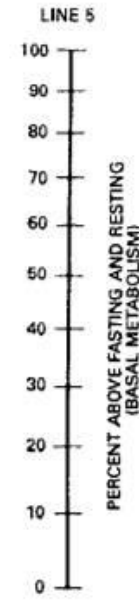
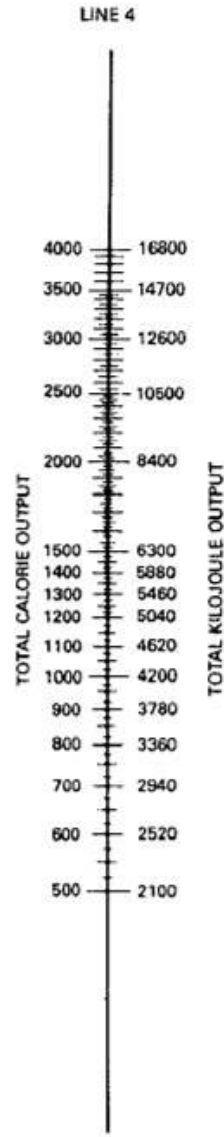
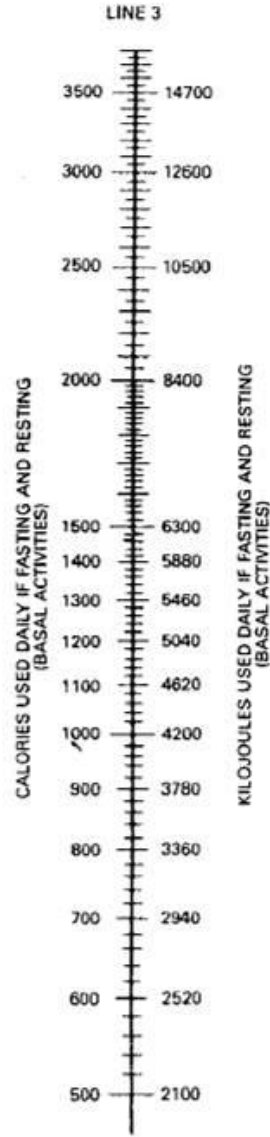
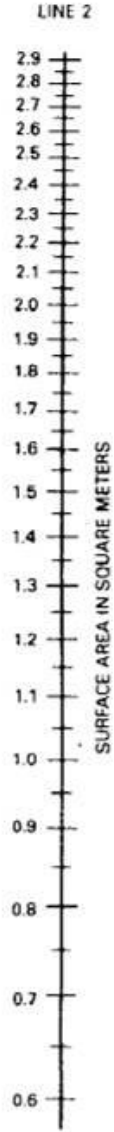
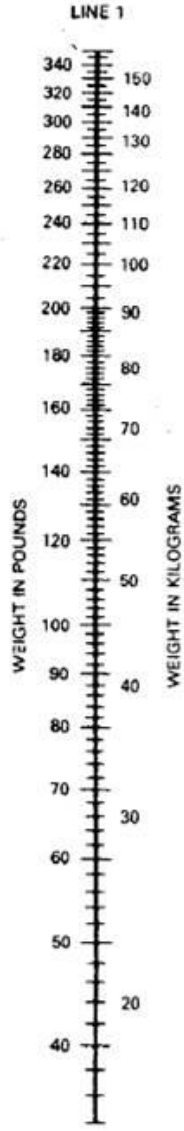
- Running (fast)
- Running on the spot
- Wrestling
- Vigorous rowing
- Exercises to disco music

Total Points

REFERENCES

1. Individualized Fitness Programs Frank Vitale, pp 181-183 Prentice Hall Inc. Inglewood Cliffs New Jersey 1973
2. Calone Calculator reproduced and adapted by permission from the Pacific Press Publishing Association.

Energy Output Calculator



METRIC CONVERSION CHART



Volume

1 tsp.....	5 mL
1 tbsp.....	15 mL
1/4 cup.....	50 mL
1/3 cup.....	75 mL
1/2 cup.....	125 mL
2/3 cup.....	150 mL
3/4 cup.....	175 mL
1 cup.....	250 mL

Weight

1 oz.....	28 g
1 lb.....	454 g
2.2 lb.....	1 kg

Length

1 inch.....	2.5 cm
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TRAINING DIET

60% Carbohydrate, 25% Fat, 15% Protein

	2,000 kcal	2,500 kcal	3,000 kcal	3,500 kcal	4,000 kcal
GRAIN PRODUCTS	10	13	16	18	20
VEGETABLES & FRUIT	6	6	8	9	10
MEAT & ALTERNATIVES	2	2	3	3	4
MILK PRODUCTS (<2%)	2	3	2	4	4
FATS & OILS(1 Tsp)	4	5	6	7	7
SUGARS (1 Tbsp)	3	4	5	6	8