The Schofield Equation

The Schofield Equation is a method of estimating the basal metabolic rate (BMR) of adult men and women.

Males		*Females*	
10-17 Years BMR = 17.7 x W + 657	SEE = 105	10-17 Years BMR = 13.4 x W + 692	SEE = 112
18-29 Years BMR = 15.1 x W + 692	SEE = 156	18-29 Years BMR = 14.8 x W + 487	SEE = 120
30-59 Years BMR = 11.5 x W + 873	SEE = 167	30-59 Years BMR = 8.3 x W + 846	SEE = 112

Key:

W = Body weight in kilograms

SEE = Standard error of estimation

The SEE value means the calculated BMR could be this number of calories out, in other words either too many or too little. As an example, if you are very muscular and possess more lean weight than an average person of the same height and weight, then you may have to add the SEE value to the BMR calculated.

[**Male 25 years, 80kg, gymnast - BMR = 15.1 x 80 + 692 = 1900 add SEE (156) = 2056**]

In addition to calculating BMR you have to apply a factor that will account for an individual's physical activity level (PAL), or physical activity factor (PAF):

Physical Activity Level (PAL)/ Physical activity Factor (PAF)	
Men	***Women***
BMR x 1.4 inactive	BMR x 1.4 inactive
BMR x 1.7 moderately active	BMR x 1.6 moderately active
BMR x 1.9 very active	BMR x 1.8 very active

Key:

Inactive – This would be a person who does not have a physically demanding job, predominantly desk bound for example. Their lifestyle would not include any form of structured exercise, and would be generally low intensity.

Moderate – This would be a person who had a more physically demanding job or a job the involved a lot of walking. They would also perform some structured, moderate intensity exercise approximately 3 times per week.

Very active – this would be person who performed intense exercise for 1 hour per day or whose job was very physically demanding and also performed some structured exercise.