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Metabolic Rates: BMR – AMR - RDA
Recommended Daily Allowance

To know your recommended daily allowance (RDA) of energy intake you need to calculate your basal metabolic rate (BMR) and active metabolic rate (AMR). Both numbers (BMR and AMR) are then added together to get your recommended daily allowance (RDA). RDA is divided into daily requirements of macro-nutrients (carbohydrates, fats and proteins). A healthy diet would consist of 50%/30%/20% and athletes training on regular basis 60%/25%/15%.

The following calculations are based on a 60kg female and 80kg male.

Female

Basal Metabolic Rate (BMR)
Female 60kg (132lbs divided by 2.2 = 60kg)
60 x 0.9 = 54 kcal/hr
54 x 24 = 1296 BMR

Active Metabolic Rate Female (AMR)
Example: BMR x level of activity = AMR
BMR 1296 x 0.4-0.5 = 518-648kcal light activity
BMR 1296 x 0.6-0.7 = 777-907kcal medium activity
BMR 1296 x 0.8-0.9 = 1036-1166kcal heavy activity

Recommended Daily Allowance Female (RDA)
Example: BMR + AMR = RDA
BMR 1296 + AMR 518-648 = 1814-1944
RDA = 1800-1900kcal light activity
BMR 1296 + AMR 777-907 = 2073-2203
RDA = 2100-2200kcal medium activity
BMR 1296 + AMR 1036-1166 = 2332-2462
RDA = 2300-2500kcal heavy activity

Male

Basal Metabolic Rate (BMR)
Male 80kg (176lbs divided by 2.2 = 80kg)
80 x 1.0 = 80 kcal/hr
80 x 24 = 1920 BMR

Active Metabolic Rate Male (AMR)
Example: BMR x level of activity = AMR
BMR 1920 x 0.5-0.6 = 960-1152kcal light activity
BMR 1920 x 0.7-0.8 = 1344-1536kcal med. activity
BMR 1920 x 0.9-1.0 = 1728-1920kcal heavy activity

Recommended Daily Allowance Male (RDA)
Example: BMR + AMR = RDA
BMR 1920 + AMR 960-1152 = 2880-3072
RDA = 2900–3100kcal light activity
BMR 1920 + AMR 1344-1536 = 3264-3456
RDA = 3300-3500kcal medium activity
BMR 1920 + AMR 1728-1920 = 3648-3840 total
RDA = 3600-3800kcal heavy activity

Note: BMR will change if there is a change in body weight (kg) and AMR changes based on daily activities.