

Resting Energy Expenditure Equation

MALE $10 + wt \text{ (kg)} + 6.25 \times ht \text{ (cm)} - 5 \times age \text{ (y)} + 5$

FEMALE $10 + wt \text{ (kg)} + 6.25 \times ht \text{ (cm)} - 5 \times age \text{ (y)} - 161$

Sample Calculations:

How to Apply the Mifflin St. Jeor Equation to Find Resting Energy Expenditure (REE)



Find the REE of a **50-year-old man** who weighs **200 pounds** and is **5'9" tall**

$$\begin{array}{rclclcl}
 10 \times (200 \text{ lb} / 2.2 \text{ kg}) & + & 6.25 \times (69 \text{ in} \times 2.54 \text{ cm}) & - & 5 \times 50 \text{ yr} & + & 5 \\
 \downarrow & & \downarrow & & \downarrow & & \\
 909 & + & 1095 & - & 250 & + & 5 \\
 & & & = & \mathbf{1,759} & & \\
 & & & & \mathbf{kcal} & &
 \end{array}$$



Find the REE of a **50-year-old female** who weighs **120 pounds** and is **5'0" tall**

$$\begin{array}{rclclcl}
 10 \times (120 \text{ lb} / 2.2 \text{ kg}) & + & 6.25 \times (60 \text{ in} \times 2.54 \text{ cm}) & - & 5 \times 50 \text{ yr} & - & 161 \\
 \downarrow & & & & \downarrow & & \\
 545 & + & 952 & - & 250 & - & 161 \\
 & & & = & \mathbf{1,086} & & \\
 & & & & \mathbf{kcal} & &
 \end{array}$$