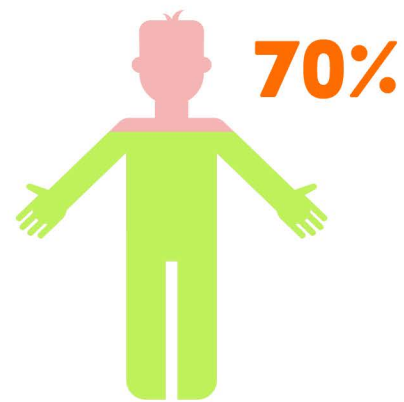


CONTINUAL ENERGY SUPPLY AND DEMAND: THE CHALLENGE

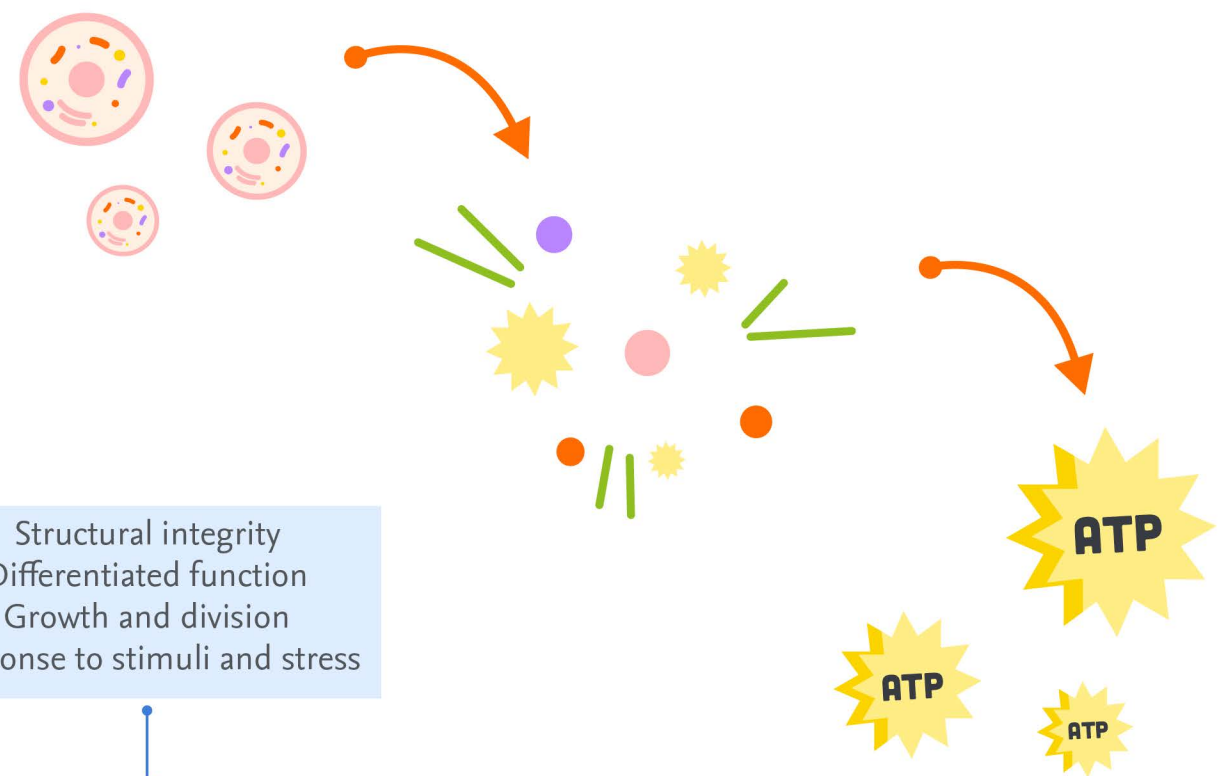
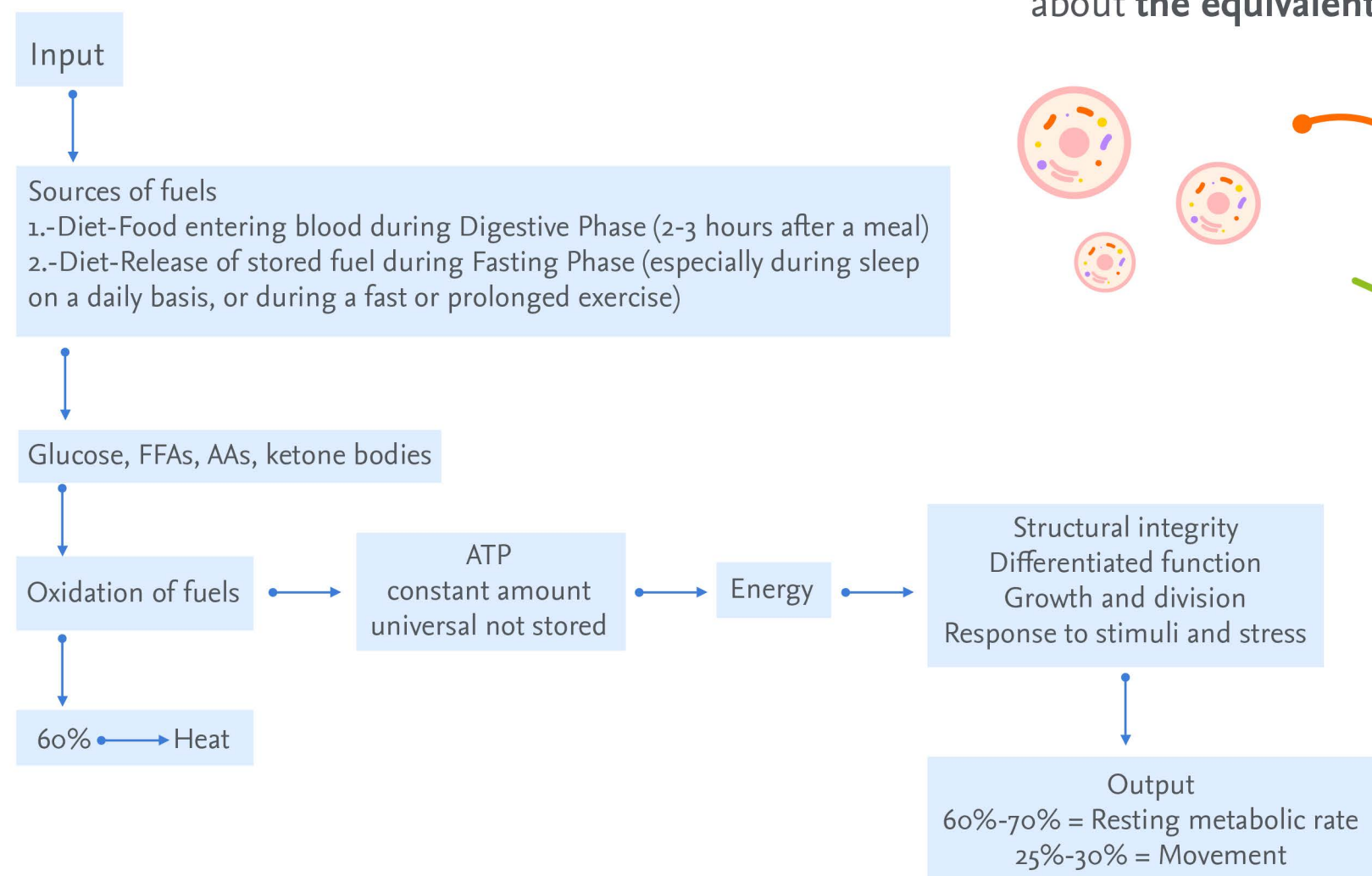


On average, the resting metabolic rate of a relaxed, awake, stationary, healthy adult human accounts for about **70%** of their **total energy** expenditure each day



To perform this work, cells need **fuels**, along with the capability to convert fuels into potential chemical energy in the form of **adenosine triphosphate (ATP)**.

Cells then convert the energy within ATP into **chemical and mechanical work**. This means that the need for ATP is immediate and unending, and consequently all living cells must continually synthesize ATP. In fact, humans produce about **the equivalent of their body weight** in ATP daily.



Source: *Berne & Levy Physiology, Eighth Edition*
by Bruce Koeppen
Available in print and on **ClinicalKey** Student

