

# ADENOSINE PHOSPHATE - AMP, ADP, & ATP

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# ATP

- Adenosine triphosphate (ATP) is the most abundant of the immediately usable energy rich molecules found within cells. Energy rich nutrients such as carbohydrates and lipids are not immediately usable energy sources.

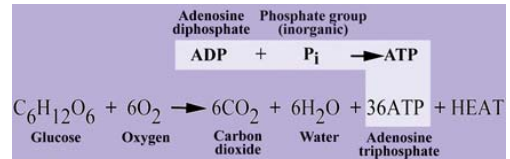


Fig 3E-1

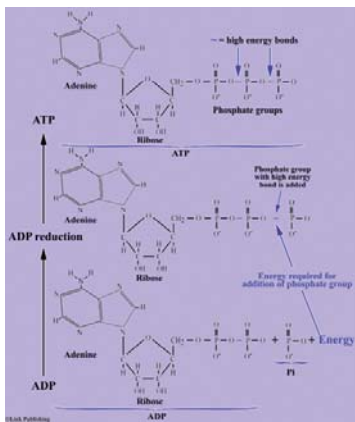


Fig. 3E-2

# Adenosine Monophosphate, AMP

- Adenosine monophosphate (AMP) is the simplest building block for the more energy rich molecule, adenosine diphosphate (ADP).

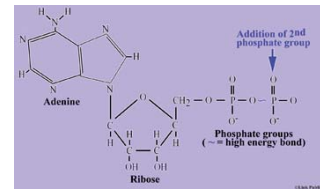


Fig 3E-3

- Adenosine monophosphate (AMP) is reduced by the addition of a phosphate group (Pi) to form adenosine diphosphate (ADP).

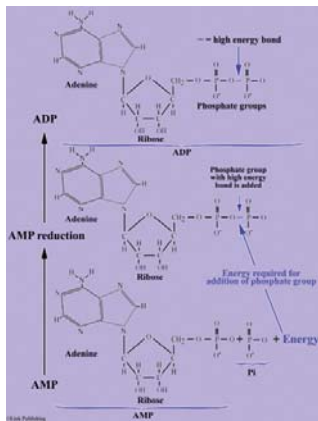


Fig. 3E-5

- Adenosine diphosphate (ADP) is oxidized by the removal of a phosphate group (Pi) to form adenosine monophosphate (AMP), with the release of energy.

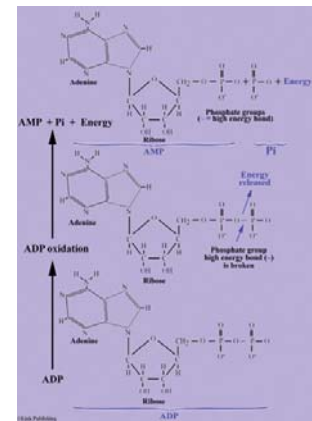


Fig 3E-10

## Adenosine Diphosphate, ADP

- Adenosine diphosphate (ADP) is reduced by the addition of a phosphate group (Pi) to form adenosine triphosphate (ATP).

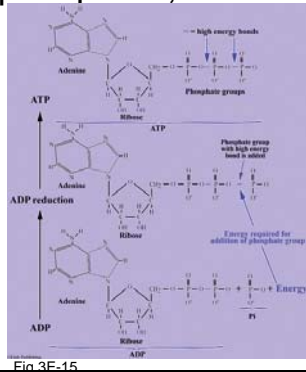


Fig. 3E-15

- Adenosine triphosphate (ATP) is oxidized by the removal of a phosphate group (Pi) to form adenosine diphosphate (ADP), with the release of energy.

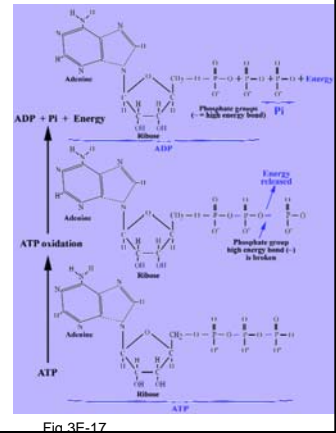


Fig. 3E-17