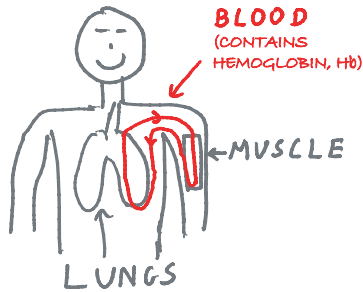
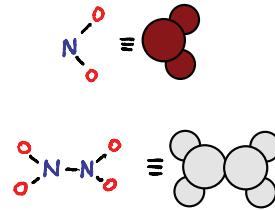
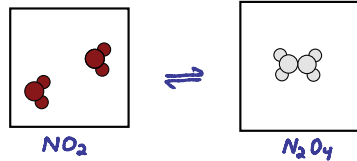


NON-REVERSIBLE REACTIONS: $A \rightarrow B$ $A + B \rightarrow C$

REVERSIBLE REACTIONS: $A \rightleftharpoons B$ $A + B \rightleftharpoons C$

DIMERIZATION OF NO_2



REVERSIBLE!

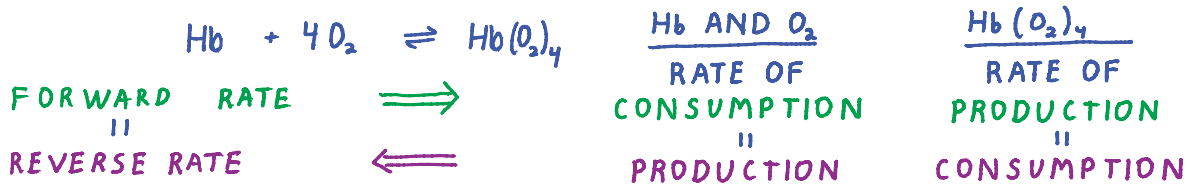


LUNGS \Rightarrow FORWARD REACTION
(PICK UP O_2)

MUSCLES \Leftarrow REVERSE REACTION
(RELEASE O_2)

Hb CAN TRANSPORT
 O_2 BECAUSE THIS
REACTION IS
REVERSIBLE

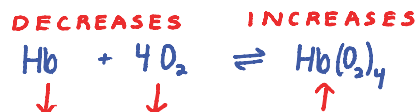
AT EQUILIBRIUM



UPON ENTERING LUNGS



FORWARD RATE
BECOMES FASTER THAN
REVERSE RATE



UNTIL
FORWARD RATE
REVERSE RATE

ADDITION OF
 O_2 TAKES
SYSTEM OUT
OF EQUILIBRIUM

\Leftarrow STRESS

REACTION
SHIFTS \Rightarrow

\Leftarrow RESPONSE

ESTABLISH A
NEW EQUILIBRIUM
STATE

\Leftarrow NEW
EQUILIBRIUM
STATE