



2006

# القدرات الالهوائية

عمر محمد الخياط

*Anaerobic Abilities*

: -  
(( ))

(30)

ATP-PC

( )

(50) (30) (200 100)

(100 10) (400)

( )

:

: -1  
-2  
-3  
-4

-1  
-2  
-3

:

: -

:  
:(Maximum Anaerobic Power) -1

(10-5)

:(Anaerobic Capacity) -2

Anaerobic Endurance

(1)

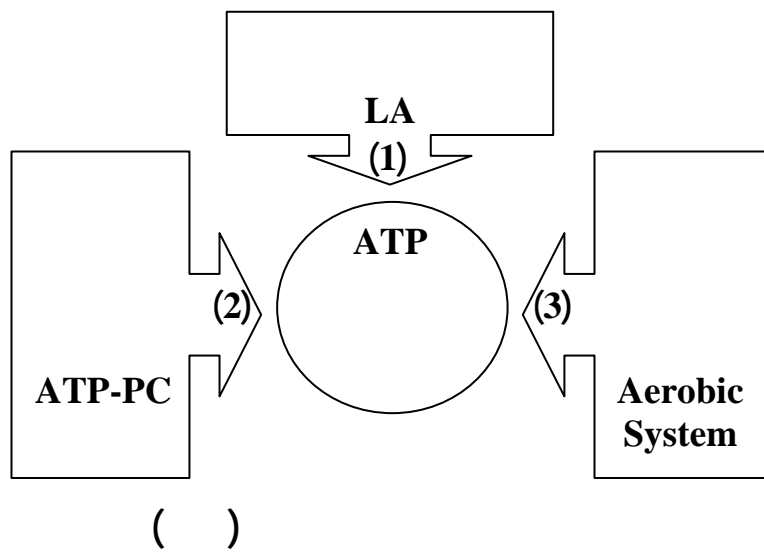
: (ATP) -

(ATP)

( )

( )

( )



):1

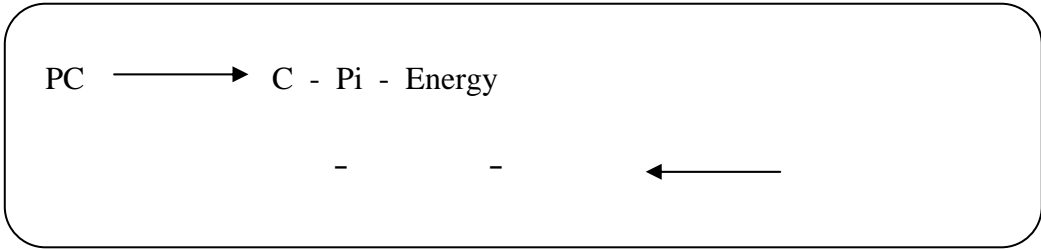
(1)

**ATP**

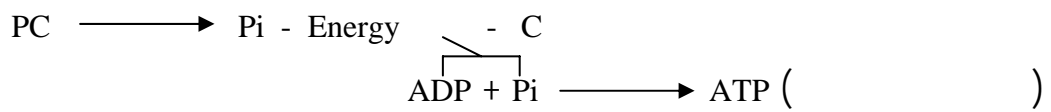
(ATP) ( )  
 : (ATP) ( )  
 .  
 . ( ) -1  
 . ( ) -2  
 . ( ) -3  
 :

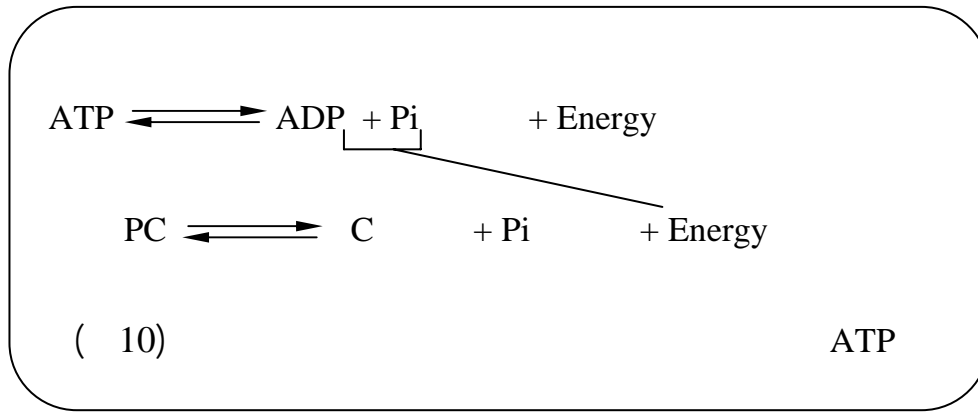
**(ATP-PC System) :**

(100) (ATP) ( 3)  
 (ATP)  
 (ATP)  
 Phospho Creatine (PC)  
 (ATP)  
 :



: (ATP)





(ATP)

(ATP)

(ATP)

(PC)

(PC)

(ATP)

(5)

(100)

(10)

(10)

(PC) (ATP)

(PC) (ATP)

( ) (100)

(PC)

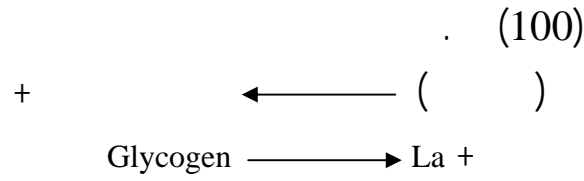
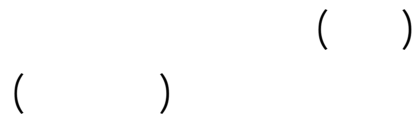
(ATP)

:

...

.Energy System Anaerobic

**Lactic Acid System (LA) :**



**.Muscular Fatigue**

Anaerobic Glycogen :

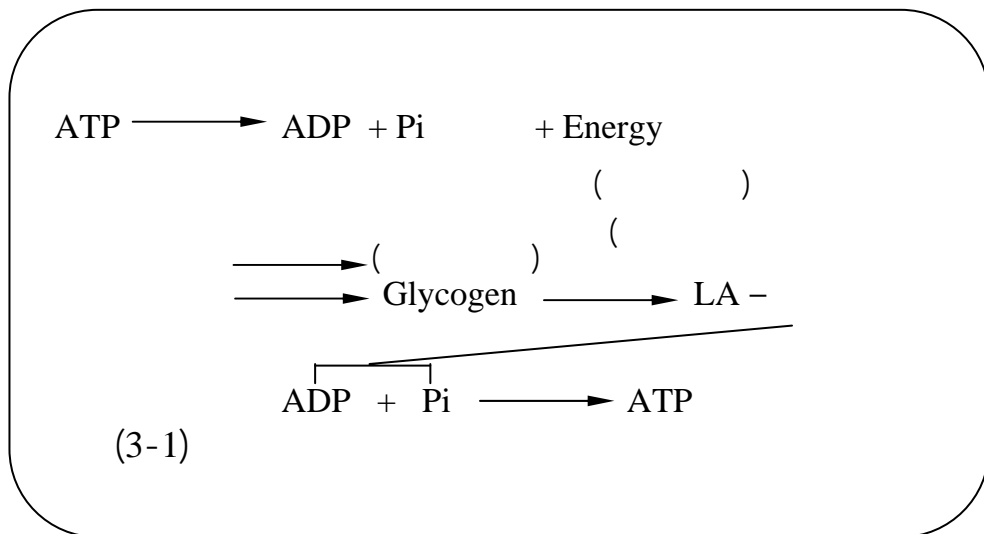


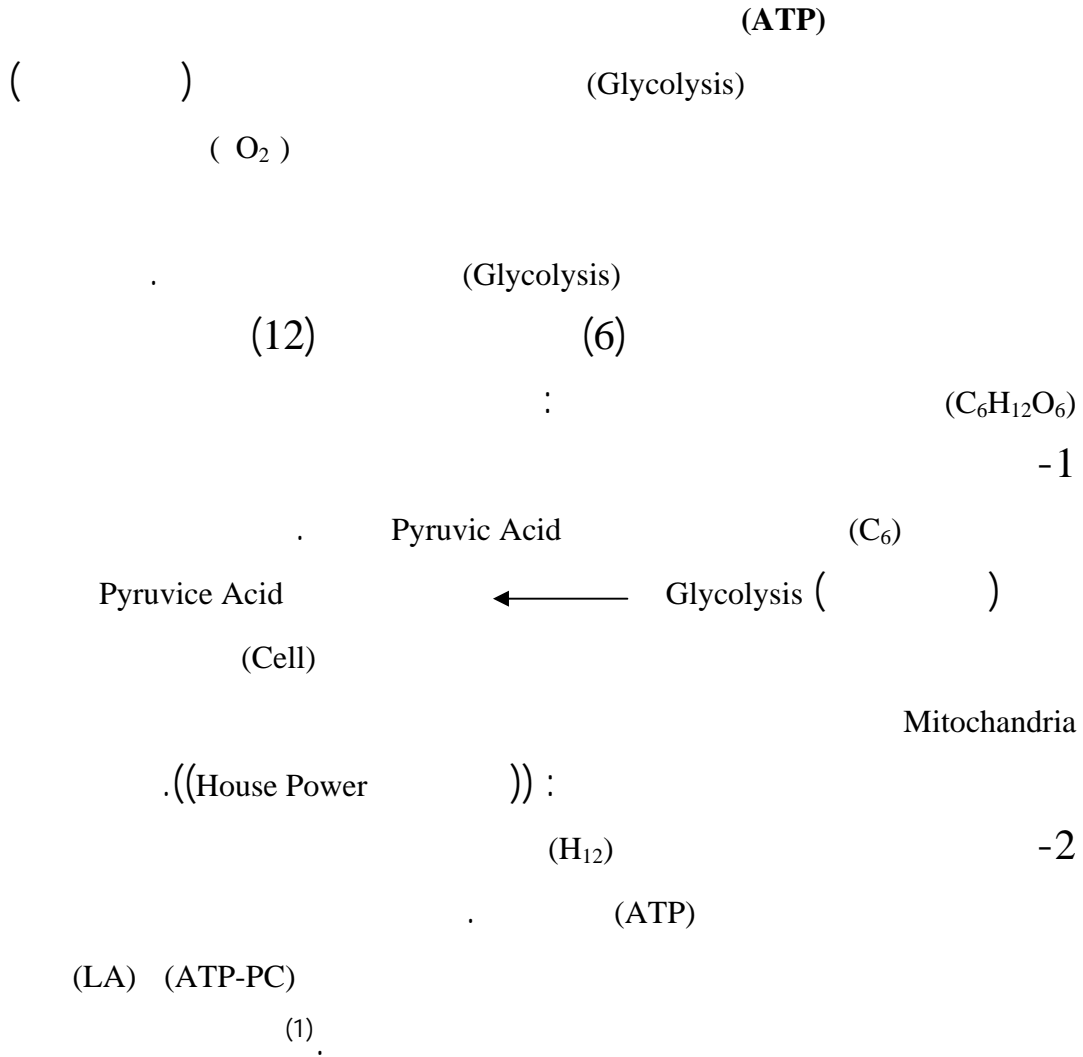
.(LA)

.LA System :

( 3:1)

(PC)





**Anaerobic Endurance :** -

(5)

)

.(

) :1 \_\_\_\_\_ (1)



:  
 :  
 :  
 :  
 :  
 :

-  
 -1  
 -2  
 -3  
 -1

Alanin

Amino Acid

-1962 Carlsten et.al.

)  
(1971 Felig and Wahren ) (1963

(1971 )  
%60-%35  
%50

Faltacel

Lular Spaces

(pH)

( )  
( )

(1972 Dollkepler and Kenl

Lactate De-Hydrogenate (LDH)

(M.LDH)

:

(H.LDH)

(H.LDH)

(H.LDH)

)

(LDH)

(H.LDH)

(1967

(M.LDH)

(M.LDH)

(H.LDH)

Lactate Dehydrogenase

:

**-3**

Acidosis

Buffering Capacity

(pH)

(1)

**The Oxygen Debt :**

-

:

-

.1922 A.V.Hill

(0.6)

(30)

-1

-2

(800)

( 42.2)

):1

(1)

.170-166 (1993)

(800) / (15-12) (800)

(800) (30-25)

. (500-450)

/ (20-15)

/ (7-6)

(ATP)

(ATP)

( )

(PC)

:

-

: -

%95

(25)

:

-1

-2

-3

-4

( )

(1)

):1

(1)

.175-170 (1993)