

[연수강좌]

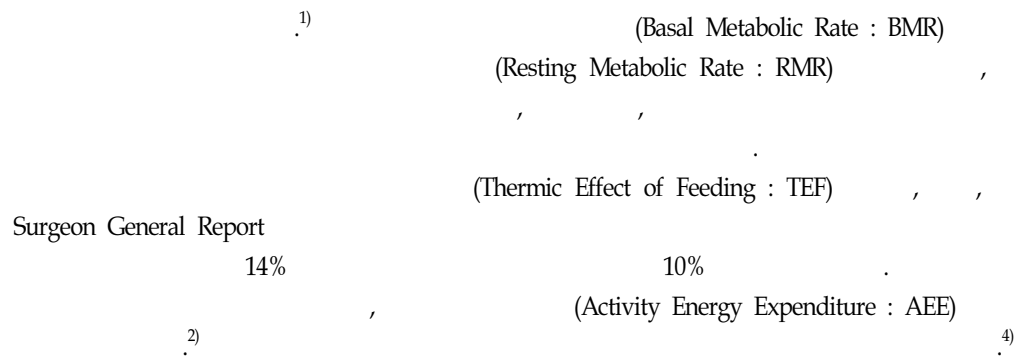
소아에서의 신체활동 및 체력측정

박 경 희

한림의대 평촌성심병원 가정의학과

서 론

에너지 소비



MET

1. 간접 칼로리미터 (indirect calorimetry)

()

2

quotient: RQ)

(respiratory

4)

(: 1.0, 0.7)

24

5-10%

6)

Goran 4-6

double labeled water

30-40

DLW

9)

3-4

신체활동량의 측정

7)

8)

30

24

(:

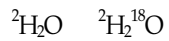
4

6)

2. Doubly Labeled Water 법

, doubly labeled water

6)



1950 Lifson
Schoeller

gold standard

Westerterp

(behavioral observation),

7-14

), (,),

(calorimetry),

(motion sensor) 5

10)

1. 직접 관찰법

(spectrometer)

Fargo Activity Time-Sampling Survey (FATS) 8
 3 10
 - Children's Activity Rating Scale (CARS)
 3-5
 Puhl 5
 3-4 0.7
 4),11-12)

Health Education Questionnaire 1 5
 8
 1)
 , 2)
 , 3) , 4)
 Keiska
 Spearman 0.35,
 Caltrac 0.8 ¹⁴⁾
 101 doubly labeled water
 doubly labeled water
 , doubly
 labeled water

2. 설문 및 인터뷰

doubly labeled water
 10 10
 50%
¹³⁾

¹⁵⁾
 Amsterdam growth ()
 Minnesota Leisure Time Activity Questionnaire
 extended Minnesota Leisure Time
 Activity Questionnaire doubly labeled
 water
 (r=0.73, p<0.01) ¹⁶⁾

3. 심박동수 모니터링 (Heart Rate Monitoring)

(: 30)
 (: kcal/session)
 Minnesota, Paffenberger,
 Stanford 7-Day recall, Baecke, Framingham , IPAQ
⁹⁾
 . Netherlands

⁴⁾
 1950 Bergen Christensen

17)

22-24)

7-15

doubly labeled water

-16.9% +18.8%

체력측정

(physical fitness)

10),17-18)

4. 보수계(pedometer), 가속도계(accelerometer)

(pedometer)

148

pedometer CARS

pedometer

19)

25)

(accelerometer)

(triaxial)

26)

1998

50m , 1200m

, 30cm

Caltrac

(r=0.7-0.9)

doubly labeled water ,

20-21)

1. 심폐지구력(cardiorespiratory endurance)

(ergometer)

(treadmill),

(step test)

(r=0.71)

2. 유연성 (flexibility)

(r=0.36)

reach) (Sit and

6. 평형성

() 5cm

7. 협응성

3. 근력 (muscular strength)

8. 민첩성

4. 근지구력 (muscular endurance)

27-30)

결 론

(Sit-up), (Push-up) 30cm

" "

5. 순발력

15 , 16

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(Standing Long Jump) 10-20cm

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