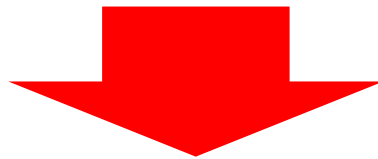


The 30 second chair stand test(CS-30) is

- chair stand test protocol ,which count the number of times of chair stand during 30 seconds.
- determined reliability as a measure of the lower extremity muscle strength . (Nakatani, 2002)
- determined correlation between CS-30 and the lower extremity muscle strength on the paralyzed side ,and subtractive correlation between CS-30 and 6MD .  
(Masuda, 2004)



CS-30 is not determined reliability as endurance.

## 【Purpose】

The validity of CS-30 as index of endurance

- from correlation between CS-30 and 6MD.
- Change of awareness of tired before and after CS-30.

## 【Object】

Twenty-two healthy participants (6 male and 16 female)

Table 1: Object persons Characteristics

Age(years)	58.0 ±7.0
Height(cm)	156.8±7.9
Weight(kg)	67.3±9.6
BMI	27.3±2.9

## 【Method】

- ① The endurance was administered with 6MD.
- ② Lower extremity muscle strength was administered with hand held dynamometer on three times.
- ③ CS-30 was administered. And Borg Scale was administered in the vicinity CS-30.

## 【Method of analysis】

- Correlation between CS-30 and 6MD  
→ Pearson's correlation
- Correlation between CS-30 and power extremity muscle strength  
→ Pearson's correlation
- Change of Borg Scale in the vicinity CS-30  
→ Mann-Whitney's U-test

## 【Result】

Table2:Measurements

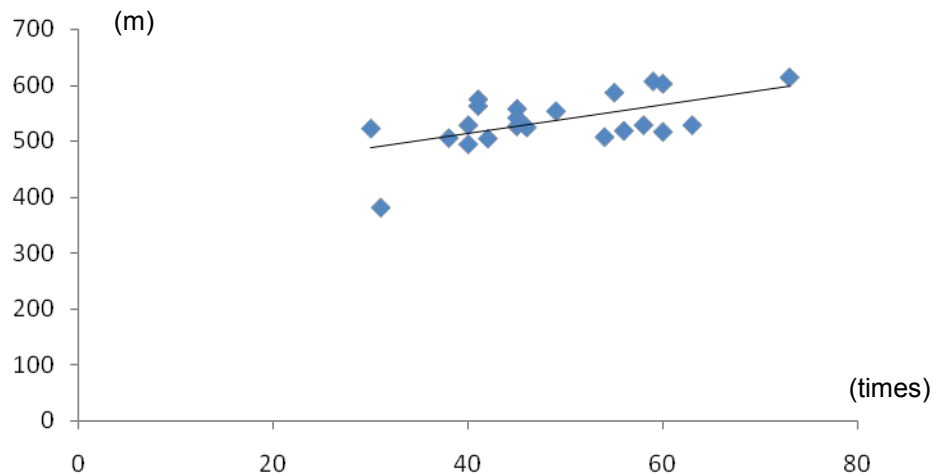
6MD(m)	536.2±49.0	
Average of lower extremity muscle strength	208.9±35.8	M±SD
CS-30(times)	48.7±10.9	

Table3: The correlation between 6MD and CS-30 and lower extremity muscle strength

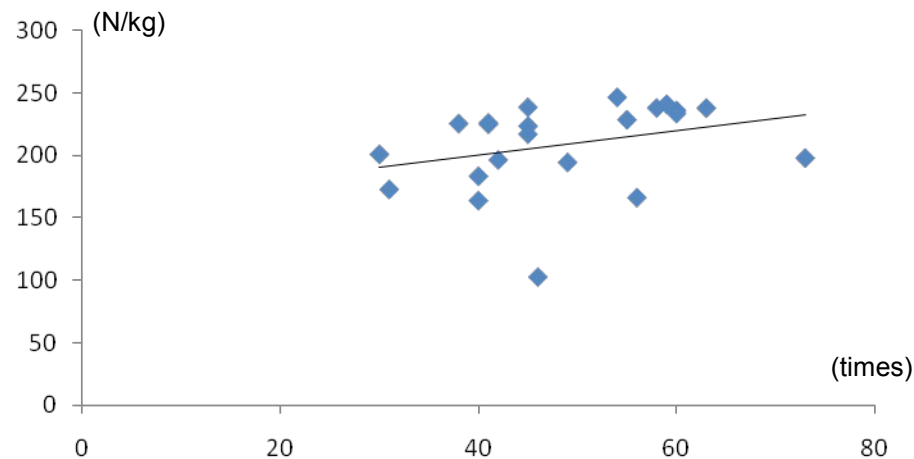
	6MD	Lower extremity muscle strength
CS-30	0.571 ※	0.312

※ a significant difference of CS-30  $p < 0.05$

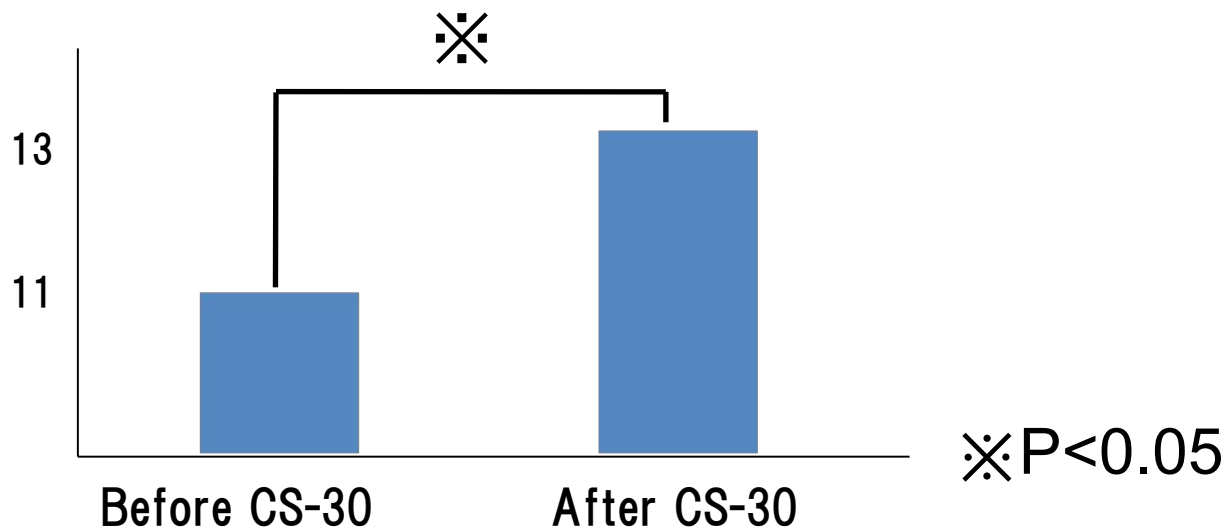
① Correlation between CS-30 and 6MD



② Correlation between CS-30 and lower extremity muscle strength

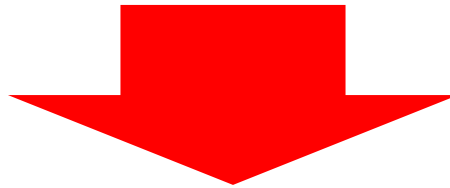


③ Change of Borg Scale between before and after CS-30



## Discussion

- The correlation between 6MD and CS-30 indicated that CS-30 might become an index of endurance.
- Judging from changes in Borg Scale, participants showed signs of distress after CS-30.



From these results, CS-30 has the concurrent validity as in an index of endurance.