



# 30-SECOND SIT-TO-STAND TEST (REP) OR 5X SIT TO STAND TEST (SEC)

## 30-SECOND SIT-TO-STAND TEST OR FIVE-TIMES-SIT-TO-STAND TEST (FTSST)

The Five-Times-Sit-to-Stand Test assesses lower-limb strength, functional mobility, and balance by measuring the time required to rise from a seated position to standing and return to sitting five consecutive times

### EQUIPMENT

Standard armless chair (seat height approximately 43–45 cm) Stopwatch or digital timer Flat, stable floor surface

### TEST PREPARATION

Before testing, participants performed a single sit-to-stand transition to ensure they could safely complete the movement without assistance. Participants then sat upright with their back unsupported and arms folded across the chest. At the examiner's signal ("Ready" → "Stand"), participants stood up fully and sat down five times as quickly as possible or 30 seconds test. Timing began on the word "Stand" and stopped when the participant reached full standing after the fifth repetition.

### INSTRUCTIONS TO PARTICIPANT

Cross your arms over your chest. When I say Go, stand up fully and sit back down as quickly as you can five times without using your arms for support (or 30 seconds). Go as fast as you can, but stay safe and keep your balance. Keep your arms crossed over your chest throughout the test." Before the timed trial, the examiner demonstrates the movement once slowly, then at a faster pace. The participant is allowed to practice 1–2 repetitions to ensure correct technique.

### SCORE

**30-Second Sit-to-Stand Test:** The number of sit to stand. (in reps) required to complete within 30 seconds. A higher value indicates better performance.

**Five-Times-Sit-to-Stand Test (FTSST):** The time (in seconds) required to complete five repetitions was recorded. A lower value indicates better performance. The test was performed once, provided the trial was valid and safely executed



### 30 SECONDS SIT TO STAND

Interpretation (Below Average Scores Indicate Fall Risk)		
Age	MEN	WOMEN
60 - 64	<14	87-115
65-69	< 12	86-116
70 - 74	< 12	80-110
75 - 79	< 11	73-109
80 - 84	< 10	71-103
85 - 90	< 8	59-91
90 - 95	< 7	52-86

### 30 SECONDS SIT TO STAND

Interpretation (Below Average Scores Indicate Fall Risk)		
Age	MEN	WOMEN
50-54	9 sec	10 sec
55-59	9 sec	10 sec
60-64	10 sec	10 sec
65-69	11 sec	11 sec
70-74	11 sec	12 sec
75-79	12 sec	12 sec
80-84	12 sec	13 sec

GRGIC J, SCHOENFELD BJ, MAIER AB, PEDISIC Z. REFERENCE VALUES FOR THE FIVE-TIMES-SIT-TO-STAND TEST: A POOLED ANALYSIS INCLUDING 45,470 PARTICIPANTS FROM 14 COUNTRIES. GEROSCIENCE. 2025





# 30-SECOND SIT-TO-STAND TEST (30STS) 5-REPETITION SIT-TO-STAND TEST (5STS) "FUNCTIONAL" SIT-TO-STAND TEST (FSTS).

## 30-SECOND SIT-TO-STAND TEST PROTOCOL

The Sit-to-Stand (STS) test is a simple yet complex movement requiring coordination, balance, and lower-limb strength. It is widely used to assess functional performance through different formats: **30-Second STS (30STS)**: Number of repetitions in 30 seconds. **Five-Repetition STS (5STS)**: Time to complete five repetitions. **Functional STS (FSTS)**: Evaluation of movement quality and symmetry. When performed on dual force platforms, the test provides detailed data on force production, rate of force development (RFD), and limb symmetry, making it useful for both rehabilitation and performance monitoring.

## EQUIPMENT

Two force platforms (ForceDecks), a standard chair of known height, and a computer or tablet running the ForceDecks software.

## TEST PROCEDURE

Position the force plates directly in front of the chair and zero them before testing. Enter the chair height if required. Measure body weight while the participant stands on the plates, then have them sit upright with one foot on each plate and arms crossed on the chest.

## INSTRUCTIONS TO PARTICIPANT

"Sit tall with your feet flat and arms crossed. When ready, lean forward (nose over toes), stand up fully, hold briefly, and then sit down in a controlled manner. Pause between each repetition and remain still before starting the next."

## TEST PROCEDURE

Once the participant is stable, begin recording. They perform 3–5 repetitions of sitting and standing with short pauses between each phase. After completion, stop the recording and review the results in ForceDecks.

## SCORING

ForceDecks automatically calculates peak and mean force, RFD, time to stand/sit, and asymmetry values. These can be compared against VALD normative data or baseline measures to track progress.

## SAFETY PRECAUTIONS

Ensure the chair is stable and against a wall. Supervise throughout the test and stop immediately if the participant experiences pain, dizziness, or instability.

