Sitting Rising test

People around the world are all expected to live longer than ever. Aging population is a global challenge to public health and there is growing interest of developing simple and reliable prognostic indicators. One of which is the popular Sitting and Rising test (SRT) designed by a research team led by Dr. Claudio Gil Soares de Araujo. SRT only involves a person to sit down on the floor from a standing position and stand back up without any support or losing balance. Depends on performance, subjects were given a score from 0 – 10. They believed that sitting and rising from the floor is a basic functional task required for autonomy, and the inability to perform SRT are closely related to the risk of falling, and the capacity to return to an upright position. They have done SRT on 2002 subjects (aged 51 – 80) and followed their survival rate for 14 years. After 5 years of follow up, they recorded 159 deaths. Only 2 out of the 159 died having a score of 10. Most of the deaths were found in those having a low SRT score. Based on their analysis, the SRT score was a identified to be a significant predictor of all-cause mortality, with subjects in the lower score range (0 – 3) exhibiting a 5 – 6 times higher risk as compared to those in the reference.

Protocol

1. Find a flat non-slippery surface or 2m x 2m
2. Stand upright with no shoes
3. Cross your legs (either way)
4. Sit on the floor without losing balance
5. Rise from the floor to original standing position

Scoring

1. SRT partial scores began with a maximum of 5 points, separately for sitting and rising.
2. During sitting or rising, 1 point was subtracted for each support utilized: that is, hand, forearm, knee, or side of leg
3. Additional 0.5 point was subtracted for unsteady execution (partial loss of balance) occurred during either action.
4. Additional 1 point was subtracted if the subject placed one hand on the knee in order to sit or rise
5. Adding the score for sitting and rising together to give the SRT score from 0 – 10.

Click here for a video illustrating SRT performance and scoring

Sitting or Rising		
Begin with full score		5
Scoring		
No support and well controlled		0
Support used	Hands (any)	-1
	Arms (any)	-1
	Knees (any)	-1
	Side of legs (any)	-1
Balance	Losing balance	-0.5
Control	Not well controlled	-0.5
Partial score		
Final score (Sitting + Rising)		

Result

Your score is categorized into 4 categories: Lowest 0 – 3, 3.5 – 5.5, 6 – 7.5, 8 – 10 Highest.

Based on an age-, gender-, and BMI-adjusted Cox analysis, there was a 3-year shorter life expectancy among subjects placed in the lowest score category as compared to subjects with the best score category. Proportional hazards analysis identified that SRT score was a significant predictor of all-cause mortality, with subjects in the lower score range exhibiting a 5–6-times higher risk as compared to the highest scoring group. Each increment in the SRT score was associated with a 21% reduction in all-cause mortality.
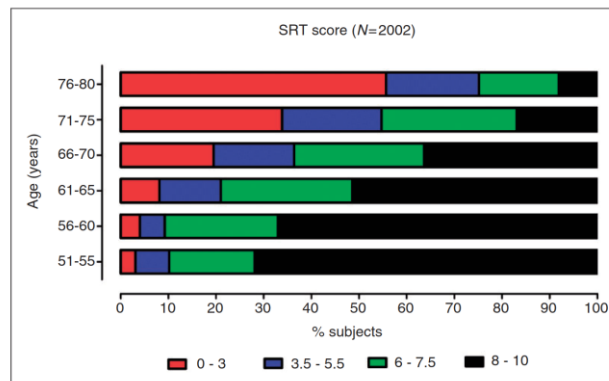
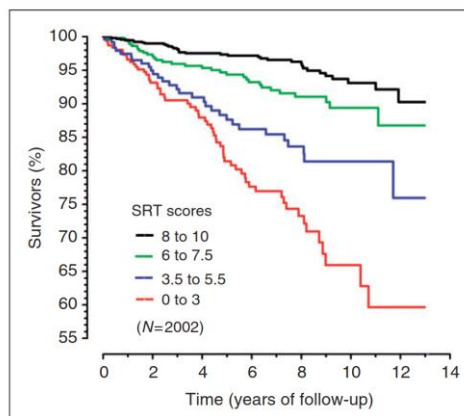**Figure 1.** Distribution of SRT scores according to age ranges.

Figure 2. Kaplan-Maier survival analysis for four ranges of SRT scoring in subjects aged 51–80 years.

Conclusion

It is obvious that SRT is not evaluating any particular health or fitness parameters. It however indirectly evaluates your daily physical activity level, as the more active you are, the more likely you are able to complete the task without losing many points. So, if you score a perfect 10, a great shout out to you in keeping yourself in good shape. But if you score not as good for now, don't worry, start exercising more and you will be scoring 10 in no time!

Reference

Brito LBB, Ricardo DR, Araujo DSMS, et. al. Ability to sit and rise from the floor as a predictor of all-cause mortality. *European Journal of Preventive Cardiology 2014: 21(7): 892 – 898*