

# Early Utilization of the 6-Minute Walk Test (6MWT) in an Active Patient after Cardiac Surgery - A Case Report



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## Unique

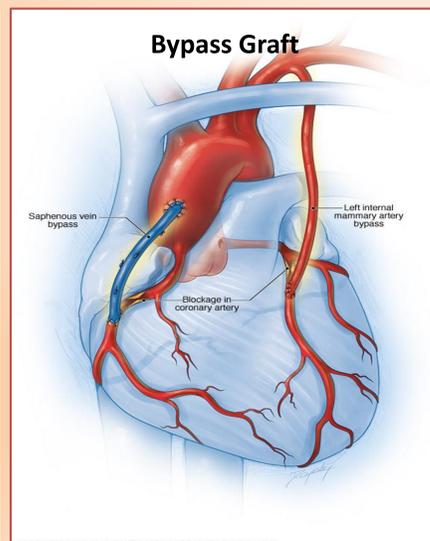
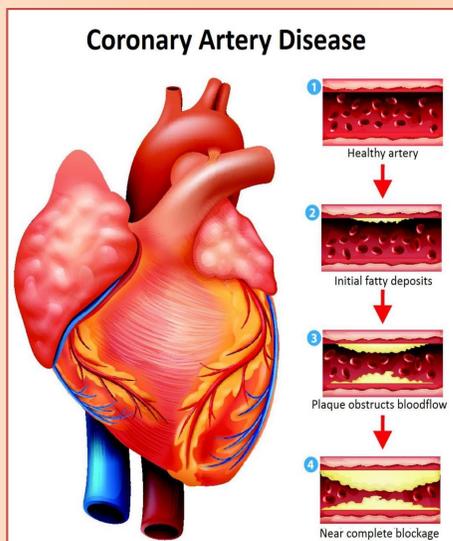
- The 6-Minute Walk Test (6MWT) is a functional outcome measure that is easy to implement and has been used across multiple populations.
- There is limited literature that has investigated the use of the 6MWT on post-operative day one (POD1) after cardiac surgery.

## Purpose

- To investigate the use of the 6MWT as an outcome measure POD1 in a patient after cardiac surgery who participated in a self-exercise pre-op program.

## Foundation

- Coronary artery disease affects more than 13 million Americans.<sup>1</sup>
- Sub-population of these patients, despite exercising regularly, can develop cardiac disease.
- Patients participating in self motivated exercise programs prior to surgery are found to excel with early utilization of the 6MWT.<sup>2</sup>
- For this active sub-population the 6MWT on POD1 may be a more specific and sensitive outcome measure.



## Description

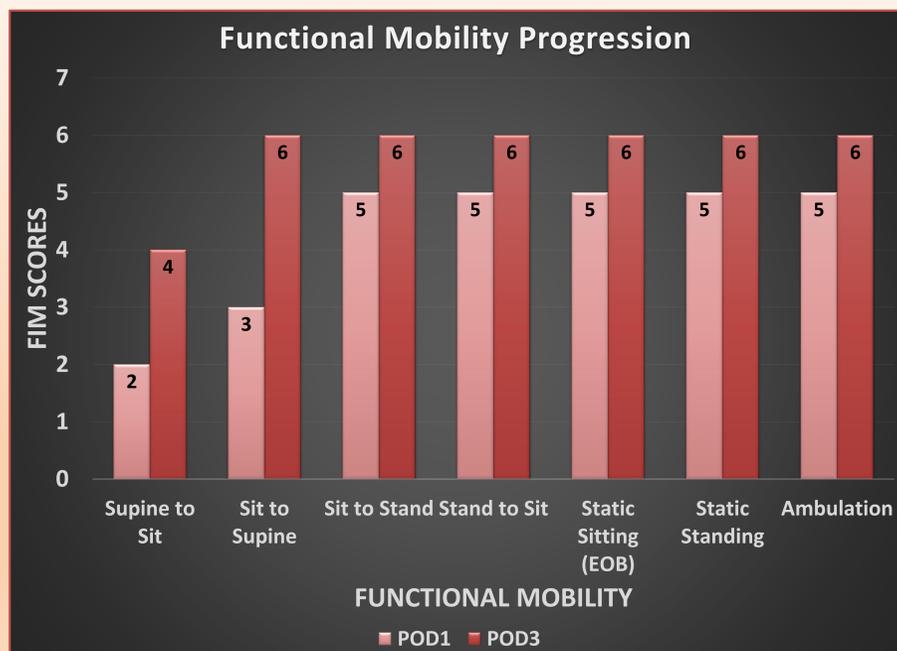
- A 68-year-old male underwent an uneventful three vessel coronary artery bypass surgery.
- He participated in a walking program for a year; two months prior to surgery his walking became limited to 20-minutes a day due to angina.
- After cardiac surgery, the patient was seen 2x/day for 3 days with discharge on the morning of POD4.
- 6MWT, RPE Scale, and FIM scores were administered in the SICU on POD1 and POD3.
- Cardiac rehabilitation focused on progressive and intensive therapeutic exercises and functional mobility training.

## Interventions

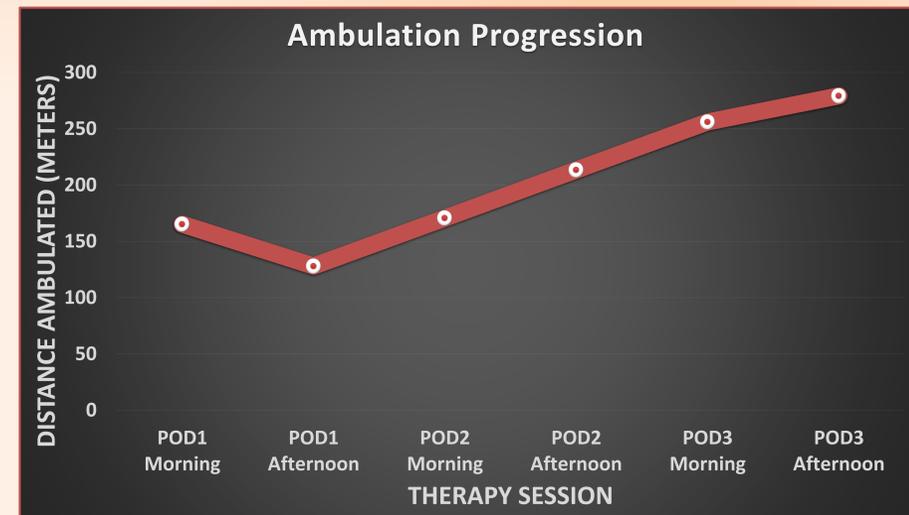
Shoulder shrugs
Shoulder flexion to level of the heart
Elbow flexion/extension
Straight leg raise
Heel slides
Seated LAQ
Ankle pumps
Marching
Incentive Spirometer

POD1	•x10reps •Supine (am), Sit (pm)
POD2	•x10-15reps •Sitting
POD3	•x15-20reps •Standing

## Observations



Outcome Measures	Admission	Discharge
6MWT (meters)	165.20m	193.85m
RPE (Borg Scale 6-20)	12	8
HR during 6MWT	80-90bpm	75-85bpm



## Conclusion

- The use of the 6MWT was found to be an excellent indicator of exercise capacity and readiness for discharge.
- The pre-op exercise program was believed to have been a major factor in the patient's uneventful and fast recovery.
- Future studies should assess the use of the 6MWT within a day of extubation in a larger population of patients who are more active prior to surgery in order to be more specific with rehab direction & allocation of resources.

## Acknowledgements

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## References

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