Prehabilitation Combined With a Higher Intensity
Patient Specific Rehabilitation for Bilateral TKA

Andrew Cook, SPT, CSCS, Dr. Kathleen Swanick, Dr. Stephen Black & Dr. Sean Wells
College of Health Professions, Department of Human Performance and Physical Therapy

According to the American Academy of Orthopaedic Surgeons, more than 600,000 knee replacements are performed every year in the United States (2011). A comprehensive preoperative strengthening program may better prepare the patient for the post-surgical rehabilitation and improve their overall outcomes (Brown, 2010). Saunkook et al. (2012) performed a study showing preoperative quad exercise at least three weeks prior to surgery benefited the patient with decreased pain, improved strength, and improved quality of life after surgery.

Petterson et al. (2009) compared a typical standard of care to a more intense and progressive training program. The control group exhibited worse functional performance at 12 months, took 24% longer on the TUG test, and walked 15% shorter on the 6 minute walk test. Why don’t we work these patients harder?

To determine whether a program consisting of prehabilitation strengthening combined with a higher intensity and patient specific program improves patients outcomes following total knee replacement.

PURPOSE

To determine whether a program consisting of prehabilitation strengthening combined with a higher intensity and patient specific program improves patients outcomes following total knee replacement.

PATIENT DESCRIPTION

The Patient was a 76 year old male who suffered a motor vehicle accident in his early adulthood and has struggled with ongoing knee problems since. Patient was diagnosed with bilateral knee arthritis. The pain and dysfunction greatly affected his daily life.

INTRODUCTION

According to the American Academy of Orthopaedic Surgeons, more than 600,000 knee replacements are performed every year in the United States (2011). A comprehensive preoperative strengthening program may better prepare the patient for the post-surgical rehabilitation and improve their overall outcomes (Brown, 2010). Saunkook et al. (2012) performed a study showing preoperative quad exercise at least three weeks prior to surgery benefited the patient with decreased pain, improved strength, and improved quality of life after surgery.

Petterson et al. (2009) compared a typical standard of care to a more intense and progressive training program. The control group exhibited worse functional performance at 12 months, took 24% longer on the TUG test, and walked 15% shorter on the 6 minute walk test. Why don’t we work these patients harder?

To determine whether a program consisting of prehabilitation strengthening combined with a higher intensity and patient specific program improves patients outcomes following total knee replacement.

PURPOSE

To determine whether a program consisting of prehabilitation strengthening combined with a higher intensity and patient specific program improves patients outcomes following total knee replacement.

PATIENT DESCRIPTION

The Patient was a 76 year old male who suffered a motor vehicle accident in his early adulthood and has struggled with ongoing knee problems since. Patient was diagnosed with bilateral knee arthritis. The pain and dysfunction greatly affected his daily life.

INTRODUCTION

According to the American Academy of Orthopaedic Surgeons, more than 600,000 knee replacements are performed every year in the United States (2011). A comprehensive preoperative strengthening program may better prepare the patient for the post-surgical rehabilitation and improve their overall outcomes (Brown, 2010). Saunkook et al. (2012) performed a study showing preoperative quad exercise at least three weeks prior to surgery benefited the patient with decreased pain, improved strength, and improved quality of life after surgery.

Petterson et al. (2009) compared a typical standard of care to a more intense and progressive training program. The control group exhibited worse functional performance at 12 months, took 24% longer on the TUG test, and walked 15% shorter on the 6 minute walk test. Why don’t we work these patients harder?

To determine whether a program consisting of prehabilitation strengthening combined with a higher intensity and patient specific program improves patients outcomes following total knee replacement.

PURPOSE

To determine whether a program consisting of prehabilitation strengthening combined with a higher intensity and patient specific program improves patients outcomes following total knee replacement.

PATIENT DESCRIPTION

The Patient was a 76 year old male who suffered a motor vehicle accident in his early adulthood and has struggled with ongoing knee problems since. Patient was diagnosed with bilateral knee arthritis. The pain and dysfunction greatly affected his daily life.