POWERS PROGRAM

The ‘Powers Program’ is an evidenced based exercise progression developed by Chris Powers, PT, PHD from the University of Southern California. Powers and colleagues have completed extensive research on the role of gluteus maximus (GMax) activation in improving lower extremity biomechanics and function as a means of decreasing knee pain.

The program consists of eight phases with an emphasis on triplanar GMax function – abduction, extension, external rotation. Phases 1-3 of the program are focused on GMax activation. Phases 4-5 are focused on GMax strength. And the final three phases emphasize functional applications of the GMax during ballistic tasks.

The patient **MUST** attain the goal repetitions (and holds when required) at one level before progressing to the next level.

It is imperative the physical therapist provides *extensive education* to the patient while progressing through the Powers Program:

- Make sure the patient feels the exercises in the glutes. Of course, the quads will continue to function during the weight bearing exercises. But the ratio of Gmax to quads activation should be 2:1. If this is not the case, check form. If still not the case, continue at a lower level for longer.

- All standing exercises:
  1) Lower extremity alignment
  2) Hips down and back

- Single limb exercises:
  1) Pelvis level
  2) Trunk vertical (no lateral deviation)

- Plyometric exercises:
  1) Soft landings
Level 1 – Activation

Clam

_____ seconds                  Work up to:  _____ seconds

_____ repetitions
        right and left

Band:  Blue  Green

Do _____ sessions per day / per week


Cues

___ Keep top hip forward

___ Fight the band
Level 1 – Activation

*Fire Hydrant*

_____ seconds  
Work up to:  _____ seconds

_____ repetitions
right and left

Band:  Blue  Green

Do _____ sessions per day / per week

**Cues**

___ Keep torso square

___ Lift leg back on diagonal

___ Knee up / foot down

___ Fight the band
Level 2 – Activation

**Squat**

______ seconds  Work up to:  ______ seconds

______ repetitions  Band:  Blue  Green

Do ______ sessions per day / per week

**Cues**

___ Knees aligned

___ Hips down and back

___ Trunk forward

___ Fight the band
Level 2 – Activation

**Surfer**

_____ seconds  Work up to:  _____ seconds

_____ repetitions  Band:  Blue  Green
    right and left

Do _____ sessions per day / per week

**Cues**

___ Knees aligned (back knee!)

___ Hips down and back

___ Trunk forward and rotated

___ Fight the band
Level 3 – Activation

*Standing Fire Hydrant*

_____ seconds  
Work up to:  _____ seconds

_____ repetitions  
Band: Blue  Green  Yellow  
right and left

Do _____ sessions per day / per week

**Cues**

___ Forearms on imaginary table

___ Zipper vertical
Level 4 – Strength
Squats

_____ sets of _____

Band:  Blue  Green

Cues

___ Knees aligned

___ Hips down and back
Level 4 – Strength

Crab Walk

_____ sets of _____ steps  right and left  Band:  Blue  Green

Cues

___ Knees aligned

___ Trunk forward

___ Trunk vertical (no side to side)

___ Hips down and back
Level 4 – Strength

*Lunge*

_____ sets of _____ right and left

**Cues**

___ Knees aligned

___ Pelvis level

___ Trunk forward (nose over toes)
Level 5 – Strength
*Split Squat*

_____ sets of _____ right and left

*Cues*

___ Knees aligned

___ Pelvis level

___ Trunk forward

___ Trunk vertical (no side to side)
Level 5 – Strength
*Standing Fire Hydrant*

_____ sets of _____  
  right and left  
  Band:  Blue  Green

**Cues**

___ Stance knee aligned

___ Pelvis level

___ Trunk forward

___ Trunk vertical (no side to side)
Level 5 – Strength
Romanian Dead Lift

_____ sets of _____  right and left

Cues

___ Stance knee straight but not locked
___ Pelvis level
___ Trunk vertical (no side to side)
Level 5 – Strength
*Hip Hike*

_____ sets of _____                right and left

**Cues**

___ Trunk slightly forward

___ Stance knee straight (but not locked)
Level 5 – Strength
*Step Up*

1 2 set(s) of 15 repetitions right and left ___ inches

**Cues**

___ Stance knee aligned

___ Pelvis level

___ Trunk forward

___ Trunk vertical (no side to side)

___ Hips down and back

___ Pass through single leg squat
Level 5 – Strength
*Step Down*

1  2  set(s) of 15 repetitions right and left ___ inches

**Cues**

___ Stance knee aligned

___ Pelvis level

___ Trunk forward

___ Trunk vertical (no side to side)

___ Hips down and back
Level 5 – Strength
*Single Leg Squat*

_____ sets of _____ right and left

**Cues**

___ Stance knee aligned

___ Pelvis level

___ Trunk forward

___ Trunk vertical (no side to side)

___ Hips down and back
Powers Program
Level 6: Forward

Band: Blue Green None

Remember: Knees aligned Soft landings Hips down/back

___ Jumps _____ sets of _____

___ Jump ups _____ sets of _____ _____ inches

___ Jump downs _____ sets of _____ _____ inches

___ Forward jumps _____ sets of _____

___ Box jumps _____ sets of _____
   Varied heights and distances
**Powers Program**
*Level 6: Lateral*

**Remember:**
- Knees aligned
- Soft landings
- Hips down/back

___ Lateral jumps
- Right / pause / left / pause _____ jumps
- Immediate side to side jumps _____ jumps
- R R / L L _____ jumps
- R R R / L L L _____ jumps

___ Lateral shuffle
- Right / pause / left / pause _____ shuffles _____ times to right and left
- Immediate direction changes _____ shuffles _____ times to right and left
Powers Program
Level 7

**Remember:**
- Knees aligned
- Pelvis level
- Trunk vertical
- Soft landings
- Hips down and back

**Hops**
- ___ Single leg jumps
  - _____ sets of _____ R & L

- ___ Single leg jump ups
  - _____ sets of _____ R & L
  - ____ inches

- ___ Single leg jump downs
  - _____ sets of _____ R & L
  - ____ inches

- ___ Single leg forward jumps
  - _____ sets of _____ R & L

**Deceleration**
- ___ One step deceleration
  - _____ sets of _____ R & L

- ___ Three step deceleration
  - _____ sets of _____ R & L

**Skater**
- ___ Small hops right to left
  - _____ hops

- ___ Large hops right to left
  - _____ hops
Remember:  Knees aligned  Pelvis level  Trunk vertical
            Soft landings  Hips down and back

_____ Forward skater  _____ sets of _____

_____ Zig-zag jumps  _____ sets of _____  R & L

_____ Step cut  _____ times  R & L

_____ Run cut
   _____ 45 degrees  _____ times  R & L
   _____ 90 degrees  _____ times  R & L
   _____ 135 degrees  _____ times  R & L

_____ Square direction changes  _____ times clockwise and counter CW
    Run – shuffle – back pedal – shuffle
Powers Performance Test

- Generally, performance testing is first completed 5 months after ACL reconstruction.
- Give the patient verbal instructions. Example: *This is a step down test. Stand on the box on your surgical leg, bend your knee, and touch your opposite heel to the ground.*
- If desired, show the patient how to do the test.
- Allow for two practice attempts – surgical leg only.
- Complete each test twice, once with an anterior vantage point and once from lateral. And document biomechanical aptitudes or faults.
- Scoring: 2 = adequate / 1 = borderline / 0 = inadequate

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<td>2 Drop Jump</td>
<td>0 1 2</td>
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<td>3 Lateral Shuffle</td>
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Passing / low risk 45-50
Moderate risk 40-44
Substantial risk <40

If a passing score is achieved, 4-6 weeks of sport specific drills and practice (progressing from non-contact to contact) before returning to competitive play. May be altered at the discretion of the surgeon.

1) Patient stands on surgical limb on 6” box. Bends knee to touch opposite heel to floor.
2) Patients stands on 12” box. Jumps to ground, rebounds vertically, and lands.
3) In athletic stance, patient shuffles quickly sideways 4-5 times then rapidly changes direction. Go first toward surgical limb so that direction change takes place on affected extremity.
4) Run 4-6 steps forward, plant on surgical leg in single leg squat, then back pedal for 4-6 steps.
5) Patient completes three moderate to large forward hops on surgical limb.
6) Run 4-6 steps forward, plan on surgical leg in single leg squat, then cut 90 degrees and continue running forward.