### Boot Camp for Persistent Low Back Pain

| Date  | Т              |                            |                |                |                |                    |
|---|----------------|----------------------------|----------------|----------------|----------------|--------------------|
| Date  | Week 1         | Week 2                     | Week 3         | Week 4         | Week 5         | Week 6             |
| 1. Bike/walk/run/swim   | min            | min                        | min            | min            | min            | min                |
|   |                |                            |                |                |                |                    |
| Lying on Back   | -              |                            |                |                |                |                    |
| 2. Knee to chest stretch  | hold           | hold                       | hold           | hold           | hold           | hold               |
| Right then left   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 3. Knee to opposite chest   | hold           | hold                       | hold           | hold           | hold           | hold               |
| stretch- right and left   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 4. Double knee to chest   | hold           | hold                       | hold           | hold           | hold           | hold               |
|   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 5. Pelvic twist   | hold           | hold                       | hold           | hold           | hold           | hold               |
| 5.b Advanced Pelvic twist   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 6. Leg lift (hamstring and calf                                       | hold           | hold                       | hold           | hold           | hold           | hold               |
| stretch) Right then left  | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 7. Pelvic tilt  | hold           | hold                       | hold           | hold           | hold           | hold               |
|   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 8. Half sit ups   | hold           | hold                       | hold           | hold           | hold           | hold               |
|   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| Lying on Side   |                | 1                          | 1              | -1             | -              | -                  |
| 9. Side sit ups- knees bent –   | hold           | hold                       | hold           | hold           | hold           | hold               |
| Right then left   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 10. Side hip lifts  | hold           | hold                       | hold           | hold           | hold           | hold               |
| Right then left   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 11. Quad stretch-heel to buttock                                      | hold           | hold                       | hold           | hold           | hold           | hold               |
| with pelvic tilt. Right then left                                     | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 12. Side plank (Advanced)   | hold           | hold                       | hold           | hold           | hold           | hold               |
| Right then left   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
|   | pillows under  |                            | 1.11           | 1 - 1 1        | 1.11           | 1 1.1              |
| 13. Back extension prone stretch<br>(Advanced) with outstretched arms | hold           | hold                       | hold           | hold           | hold           | hold               |
| 14. Back leg extensions*  | repeat<br>hold | repeat<br>hold             | repeat<br>hold | repeat<br>hold | repeat<br>hold | repeat<br>hold     |
| (Advanced) lift 6 inches. RT & LT                                     | repeat         | hold<br>repeat             | hold<br>repeat | hold<br>repeat | hold<br>repeat | repeat             |
| 14b. Back leg extension using chair                                   | <b>.</b>       | repeat                     |                | repeat         | repeat         | repeat             |
| 12 inches up-down, Right & left                                       | repeat<br>sets | sets                       | repeat<br>sets | sets           | sets           | sets               |
| 15. Torso extensions*   | hold           | hold                       | hold           | hold           | hold           | hold               |
| (Advanced) lift 6 inches.   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 15b. Torso extension using table                                      | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 6-12 inches move up-down  | sets           | sets                       | sets           | sets           | sets           | sets               |
| 16. Front plank (Advanced)  | hold           | hold                       | hold           | hold           | hold           | hold               |
| 10. From plank (Futureed)   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| Standing  |                |                            |                |                |                |                    |
| 17. Standing side bend  | hold           | hold                       | hold           | hold           | hold           | hold               |
| Right and left  | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 18. Hip flexor stretch  | hold           | hold                       | hold           | hold           | hold           | hold               |
| Right then left   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 19. Back extensions stretch   | hold           | hold                       | hold           | hold           | hold           | hold               |
| (Advanced)  | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| 20. Standing pelvic tilt  | hold           | hold                       | hold           | hold           | hold           | hold               |
|   | repeat         | repeat                     | repeat         | repeat         | repeat         | repeat             |
| Walking   |                |                            |                |                |                |                    |
| 21. Graduated walking with pelvic tilt                                | steps          | steps                      | steps          | steps          | steps          | steps              |
| Postural instruction  | Sit/drive      | Computer/<br>mobile device | Stand          | Walk           | Sleep          | Daily<br>Awareness |
| Step/Activity count   |                |                            |                |                |                |                    |
| Version October 2014  | L              | 1                          | L              | 1              | 1              | 1                  |

Version October 2014

# **BIKE/WALK/RUN/SWIM**



### Instructions

Each boot camp program includes aerobic exercise. The type and intensity of the aerobic exercise you will be asked to do will depend on the severity of your low back pain, your level of fitness and any other underlying health problems you may have. Consult your health care professional before engaging in any aerobic exercises to ensure it is safe for you.

If you use a stationary bike it is important to adjust the seat height to a level that allows the knee to almost fully extend while pedaling.

### SCHEDULE

| Performed times daily          | Week 1  | Week 2  | Week 3  | Week 4  | Week 5  | Week 6  |
|--------------------------------|---------|---------|---------|---------|---------|---------|
| Bike/walk/run/swim             | minutes | minutes | minutes | minutes | minutes | minutes |
| For bike: tension (resistance) |         |         |         |         |         |         |

# **KNEE TO CHEST STRETCH**





#### Instructions

While on your back bring one knee to your chest. Then, with both hands on the knee, pull the knee as far as you can to your chest/shoulder. Keep the other leg straight on the mat. Repeat on the other side.





| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Knee to Chest stretch | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |









# **KNEE TO OPPOSITE SHOULDER STRETCH**

### Instructions

Instructions: While on you back, bring one knee to your chest. Then, with both hands on the outside of the knee, pull the knee as far as you can toward the opposite shoulder. Then, grasp the ankle with your opposite hand and pull at the same time as you are directing the knee to the opposite shoulder. Repeat on the opposite side.



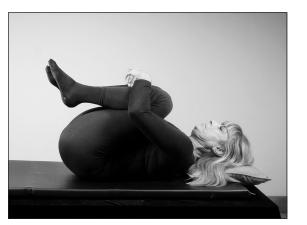


### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Knee to Opposite      | hold   | hold   | hold   | hold   | hold   | hold   |
| Shoulder Stretch      | repeat | repeat | repeat | repeat | repeat | repeat |

# **DOUBLE KNEE TO CHEST STRETCH**





### Instructions

Using your hands bring both knees toward the chest and pull as far as you can go and hold.

\* Note: Exercises 2, 3 and 4 can be done in the following sequence for efficiency: knee to chest, then knee to opposite shoulder stretch then repeat on the other side and then finish with double knee to chest stretch.

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Double Knee to        | hold   | hold   | hold   | hold   | hold   | hold   |
| Chest Stretch         | repeat | repeat | repeat | repeat | repeat | repeat |

# **PELVIC TWIST STRETCH**



### Instructions

Lying on your back bend both knees keeping your feet flat on the floor. Bring both knees together to one side then the other. It is important to keep your shoulders flat on the floor and do not shift your pelvis when moving side to side.









### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Pelvic Twist Stretch  | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |



### Instructions

Lying on your back, bend both knees keeping your feet flat on the mat. Place the right leg over the left knee and while keeping the shoulder on the mat drop the right knee towards your left side as far as you can. Repeat the process on the opposite side by placing the left leg over the right leg. Repeat by going side to side.

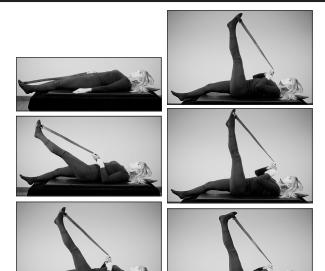
**ADVANCED PELVIC TWIST** 





| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Advanced Pelvic Twist | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

### LEG LIFT (HAMSTRING AND CALF STRETCH)



### Instructions

There are two phases to this exercise. First, lying on your back and using a belt or strap, wrap the belt around the base of the toes of one foot. Pull the leg up towards you as far as you can with the knee straight and hold. Second, point the toes towards the ceiling and then using the belt pull the foot down while keeping the knee straight, then repeat. Repeat on the opposite side.

# SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Hamstring then Calf   | hold   | hold   | hold   | hold   | hold   | hold   |
| Stretch               | repeat | repeat | repeat | repeat | repeat | repeat |

# **PELVIC TILT**





### Instructions

Lying on your back, squeeze your buttock muscles together and while contracting your lower abdominal muscles, tilt your pelvis towards you while flattening your lower back against the floor. Hold this position. Do not elevate your pelvis off the floor.

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Pelvic Tilt           | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# HALF SIT-UP



### Instructions

Lying on your back, bend both knees and keep your feet flat on the floor. Place your arms across your chest. Elevate your torso off the floor. Hold this position.





### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Half Sit-Up           | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |



# SIDE SIT-UP

### Instructions

Lying on your right side with both knees bent, bend your right arm, making a fist, pointing to the ceiling, placing your right elbow against your body. Then, place your left open hand over the fist of the right hand. While pushing down with your left hand, elevate your torso. Hold this position.



| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Side Sit-Up           | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# SIDE HIP LIFT



### Instructions

Lying on your side with your bottom knee bent, raise your top leg, keeping it straight, about 12 inches above the mat. Hold this position. Then, move the straight leg toward your head about two feet and hold. Then, repeat and stretch as far as you can and hold. Repeat on opposite side.



### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Side Hip Lift         | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# **QUADRICEPS STRETCH**



### Instructions

Lying on your side with your bottom knee bent, grasp the ankle of the top leg and pull the leg backwards without arching your back. Hold this position.





| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Quadriceps Stretch    | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |





### Instructions

Lie on your side with both knees straight. Lift your body off the ground and balance on one forearm and the side of your foot. Place your opposite hand on your hip. Contract your abdominal muscles and hold for 10 seconds. Repeat on the opposite side.





### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Side Plank            | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# PRONE BACK EXTENSIONS (ADVANCED)







### Instructions

Lie on your stomach on a firm surface with your feet together. While keeping your back relaxed and hips on the floor, prop yourself up onto your forearms (or if you can outstretched arms like doing a push-up), keeping your back relaxed. Exhale when you reach the top and let your mid-back sag as you exhale. Hold the position and then slowly lower yourself to the starting position.

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Prone Back Extensions | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# BACK LEG EXTENSION (ADVANCED)









### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Back Leg Extension    | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

### Instructions

Place a stack of pillows or blankets on the mat about 12 inches high. Lie, face down, with your pelvis on the pillows or blankets. Lift your leg 6 inches off the mat, keeping your knee straight. Do not arch your back. Hold this position. Repeat on the opposite leg.

### BACK LEG EXTENSION USING CHAIR

### Instructions

14b

Place a chair with arm rests against a wall. Lean forward and place hands on arm rests. Extend the right leg backwards keeping your knee straight. Do not over arch your back. Elevate foot about 12 inches above the floor then return to rest position and repeat. Repeat on opposite side.





| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Back Leg Extension    | repeat | repeat | repeat | repeat | repeat | hold   |
| using chair           | sets   | sets   | sets   | sets   | sets   | repeat |





### Instructions

Place a stack of pillows or blankets on the mat about 12 inches high. Lie, face down, with your pelvis on the pillows or blankets. Place your hands behind your back. Keeping your back straight, lift your torso 6 inches off the mat. Do not arch your back. Hold this position.



### **SCHEDULE**

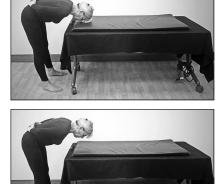
| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Torso Extension       | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |



### TORSO EXTENSION USING TABLE

### Instructions

Stand in front of a table/desk with legs shoulder width apart. Place hands behind your back. Lean forward until your nose touches the table/desk, then elevate torso about 6-12 inches and then go down to the table again and repeat.



### **SCHEDULE**

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Torso Extension       | repeat | repeat | repeat | repeat | repeat | repeat |
| using table           | sets   | sets   | sets   | sets   | sets   | sets   |

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### FRONT PLANK (ADVANCED)

### Instructions

Lying face down on mat, place elbows shoulder width apart and hands and feet together. While contacting abdominal muscles elevate your body balancing your weight onto your forearms and toes. Hold this position.



### **SCHEDULE**

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Front Plank           | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# **STANDING SIDE BEND STRETCH**

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### Instructions

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Stand near a wall for support and cross one leg over the other leg at the ankle. Extend the arm (that is on the same side as the front leg) overhead, reaching toward the opposite side. You should feel a stretch along the hip of the front leg. Hold this position and then repeat on the opposite side.



| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Standing Side Bend    | hold   | hold   | hold   | hold   | hold   | hold   |
| Stretch               | repeat | repeat | repeat | repeat | repeat | repeat |

# **HIP FLEXOR STRETCH**



### Instructions

Place a chair up against a wall. Place one foot on the chair with the knee bent. The other leg should be straight and about 6 inches from the chair. Then, while maintaining the pelvic tilt, lean forward by bending the knee that is on the chair. You should feel a stretch along the groin of the opposite leg. Hold this position. Repeat on opposite side.



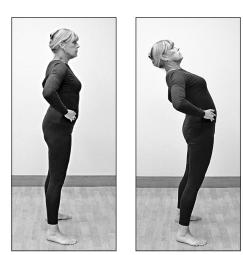


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### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Hip Flexor Stretch    | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# STANDING BACK EXTENSIONS (ADVANCED)



### Instructions

While standing with your feet shoulder width apart, place your hands on your hips and lean back to arch your back. Hold this position.

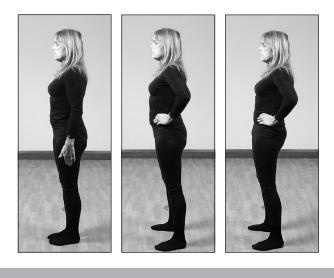
| Performed times daily   | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-------------------------|--------|--------|--------|--------|--------|--------|
| Standing Back Extension | hold   | hold   | hold   | hold   | hold   | hold   |
|                         | repeat | repeat | repeat | repeat | repeat | repeat |

# **STANDING PELVIC TILT**

### Instructions

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Standing, with your feet shoulder width apart, squeeze your buttocks and perform the pelvic tilt. Avoid arching your back. Hold this position.



### SCHEDULE

| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Standing Pelvic Tilt  | hold   | hold   | hold   | hold   | hold   | hold   |
|                       | repeat | repeat | repeat | repeat | repeat | repeat |

# WALKING PELVIC TILT



### Instructions

Stand in the pelvic tilt position. While maintaining the pelvic tilt position attempt to walk normally, swinging your arms.



| Performed times daily | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Walking Pelvic Tilt   | steps  | steps  | steps  | steps  | steps  | steps  |