

*“IT’S NEVER TOO LATE TO BE  
WHAT YOU MIGHT HAVE BEEN”*

*-GEORGE ELIOT*

# BeneFIT

## Physical Therapy

A Quarterly Newsletter

Issue No 8 - Summer 2014

### PROPER LIFTING MECHANICS

June brings the end of a school year, the start of summer fun, and if you have been looking to purchase a new home it often is the time of year when people get to move from one home into their next. During this exciting time there will undoubtedly be a fair amount of lifting going on; from furniture, or boxes in the moving process to luggage & kids on vacation trips. But nothing stops a move or a vacation short like low back pain!

Low back pain (LBP) is the leading cause of activity limitation and missing work in the industrialized world, (1) In the US it is estimated that over 149 million work days are lost every year to LBP (2) and that costs the US between \$100 to \$200 billion a year in treatment and lost wages.(3) Furthermore, the majority of people (65%) injure their backs while at home.(4)

One of the more recognizable ways people can injure their backs is with Improper lifting technique. Learning the proper way to lift will help you minimize the risk of pain and injury and ease that transition to your new home or keep you on your feet in getting to that vacation spot!

•Plan ahead before lifting heavy objects. Make sure you have a clear path. This will help you avoid any awkward or sudden movements that can strain your muscles.



Lift with Legs, Keep Arms Tight

•Test an object’s weight before lifting by pushing it with your foot. If it seems too heavy, ask for help. Be honest with yourself...a couple minutes of patience can pay dividends later.

•Face the object you intend to lift and avoid twisting. Don’t lean over an object to lift it. Instead, stand as close to the object as you can, with your feet on either side of the object if possible. Bend your legs keep your back straight, and maintain the object as close to your body as you can.

•Lift with your legs, not with your back. Think of pushing your legs into the ground and not straightening your back.

•Keep feet shoulder-width apart and maintain your balance by distributing the object’s weight equally on both sides of your body. Keep your arms close to your sides and avoid reaching out with the object in your arms.

If a back injury does occur, seek medical attention. What starts as a minor back injury can progress to a chronic condition without early intervention, but by using proper lifting techniques over the course of the next few months you will be able to enjoy a LBP free summer and not have to be stuck inside.

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### PROPER DRIVING POSITIONING

Summer in America typically means vacation, and the #1 vacation Americans take is the Road Trip. According to a recent survey by Bridgestone Tires, 83% of Americans plan on taking a road trip this summer. Furthermore, AAA Newsroom has an article indicating that more than 34.8 Million people will be taking a road trip just for the 4th of July weekend! Unfortunately, prolonged driving can increase the likelihood of having a Low Back Pain (LBP) occurrence, up to 51% in

professional drivers (1). Some research suggests that Americans have a 1.6-2.0x greater chance of having LBP(2). Factors that contribute to this are: prolonged driving (3), and whole-body vibration (WBV) (4). With summer officially here it sounds like a great time to review proper driving ergonomics in an effort to help prevent an episode of LBP from stopping your trip in it’s tracks.

•To start, sit in your car and put the seat all the way back, all the way

down to the floor, and tilt it back about 40-50 degrees. Move the Steering wheel all the way up and away from you.

•Move the seat height up so your hips are inline with your knees and you do not have to alter your head position to clearly see the road or dashboard.

•Move the seat forward until you can reach the pedals and push them all the way down without moving your back from the seat.

•Next, tilt the seat back forward until your hips make about a 100-110

degree angle with your trunk in an effort to decrease the pressure on your lumbar spine.

•In this position, now adjust your headrest so the middle of the back of your head rests against it.

•Adjust the lumbar support to allow for even pressure across your low back (if your car does not have or provide enough support a lumbar cushion can be added to provide the appropriate support).

•Tilt your seat cushion to rest evenly across the back of your legs and away from the back of your

knees to avoid restricted circulation in areas of greater pressure.

•In this position you can now adjust the seat belt to accommodate your new position.

•Now bring the steering wheel down and toward you; instead of ‘10 and 2’ positioning adjust the steering wheel to comfortably drive at ‘9 and 3’ to further minimize reach and decrease the strain on your neck and upper back.

•Finally, adjust your mirrors to your new position. Down the road if

the mirrors need to be readjusted that is a cue to readjust your sitting posture.

Remember, **SAFETY IS YOUR 1ST CONCERN**, never make an adjustment that would obstruct your view of the road, your mirrors, or your dashboard.

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**WATCHING OUT FOR DEHYDRATION**

With temperatures reaching into the 90s all ready it seems summer is in full swing. Working out during this heat creates it's own set of issues that can effect performance. Frequent research has been able to demonstrate that heat can negatively impact marathon running performance from about 2% in elite competitors to as much as 10% in 3hr finishers(1), with similar results being seen in elite cyclists(2).

One of the quickest ways to ruin a summer workout is dehydration. In fact, even a loss of water of about 1.5-2% of a person's BMI (Body Mass Index) can negatively impact their ability to play in sports like soccer(3), and prolonged exercising >1hr(4). Unfortunately, feeling thirsty is one of the signs of dehydration which also include dry mouth, irritability/ crankiness, headache, seeming bored or disinterested, dizziness, cramping, excessive fatigue, and not being able to run or play as fast as usual(5). What to do if you feel you are dehydrated? Immediately move into a shaded or air conditioned area and start drinking fluids.

Here are some tips to help prevent dehydration from the National



Athletic Trainers' Association(6) and allow you to continue to perform at your best this summer:

- Consume 17-20 fl oz of water or sports drink 2-3 hrs before exercising.
- Consume 7-10 fl oz of water or sports drink 10-20 minutes before exercising.

- Consume 7-10 fl oz of water or sports drink every 10-20 minutes while exercising. (keep in mind you may require more depending on how your sweat rate and the weather conditions)
- To calculate your sweat rate: Weigh yourself with as little as possible on prior to exercising and again afterwards. a 2% loss would require additional fluid intake prior to your next workout. (2% loss equals 3lbs for someone weighing 150lbs, 4lbs for someone weighing 200lbs)
- Every pound lost equals 16oz that you should drink to rehydrate.
- Your goal should be to finish exercising and weigh within 2% of the weight you started exercising at.
- Another quick guide would be to look at the color of your urine. If it is dark yellow to tea like that would indicate you are dehydrated. Urine

color should be light or pale yellow to almost clear.

Finally, if you feel any of the symptoms of dehydration speak up. Talk to your workout partner, coach, or athletic trainer immediately as dehydration is the first of other heat related illness that could require greater levels of medical attention like heat exhaustion or heat stroke. Following these simple guidelines could be the difference in keeping your competitive edge without compromising your health when training this summer.

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**SUMMER WORKOUT TIPS**

Getting a summer workout can be grueling between all the Bar-B-Ques, vacation plans, weekends to the shore, entertaining kids, and that four letter word that never ever goes away: WORK. Add to that dealing with the increased heat and humidity the dog days of summer bring it is amazing people are able to continue to get their workouts in at all. Here are a couple tips to help get you through the day and keep those workouts coming:

- **PLAN IT:** People are able to stay more consistent when they plan their workouts into their today lists, daily planner, or calendars.
- **GRAB A FRIEND:** Participation increases when you workout with a buddy. It provides a greater commitment when someone else is relying on you to show up but it can provide a small boost of competitiveness.
- **LISTEN TO TUNES:** Don't only grab the tunes that grab you but research has shown that if you choose songs with tempos 1-2 BPMs (beats per minute) greater than what you are used to listening too it will help increase your work

rate and can turn your pain, breathlessness, and inner voice screaming stop into a positive experience.

- **WAKE UP AND GO:** One of the more common traits between the most successful CEOs in the country is to get a work out in before 8am. Not only do they say it helps set the tone of the day, it puts them first in their priorities before the stressors of the day, But, in the Summer working out in the morning has the added benefit of being at one of the coolest and less humid times of the day.
- **WEAR THE RIGHT GEAR:** Summer training clothes should be light, reflective, and if at all possible made of a material that is breathable and wicks sweat away from the body, for example Under Armour's Heat Gear. If all you got is cotton then bring a few spares to change into as the more saturated with sweat cotton gets the less sweat is evaporated and the greater chance of overheating.

Hopefully, these tips will help you achieve your fitness goals through the summer!

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