

Work Hardening (Continued)



It is important that a Functional Capacity Evaluation is performed, and that it be performed by a Licensed Physical or Occupational Therapist, in order to set up a base line of abilities or disabilities. After completing the functional capacity evaluation the licensed therapist will design a work hardening program. Work hardening programs are based on the clinical findings, the worker's functional abilities, functional deficits and the physical job demands of the worker's job. The functional goals are set according to the critical/essential demands of the worker's job.

An effective work hardening program should include close supervision by a professionally trained therapist who specializes in industrial rehabilitation. Upon referring a worker to a work hardening program, the physician or case manager will want to investigate the amount of supervision the worker is receiving by a licensed therapist. In addition to supervision of the worker, the therapist is responsible for constant communication to the physician, case manager or rehab specialist, and the employer regarding the worker's progress and compliance. The typical program lasts 4 hours each day, (but can be adjusted up to 8 hours a day), and is performed 5 days a week. The amount of work hardening a worker attends ranges anywhere from 2 to 6 weeks, depending on the severity of the injury and the physical demand of the worker's job. Also the therapist should contact the appropriate team members if a pa-

tient cancels or does not show for the work hardening rehabilitation. Benefits are numerous for not only the worker, but also the employer. The injured worker will make gains in strength, flexibility, and endurance, as well as maximize their employment feasibility. It provides the worker with optimum patient education regarding ergonomics, principals of body mechanics, and proper material handling. The worker will also learn his or her own safe material handling limits in an effort to prevent injuring themselves again.

Work hardening is an environment where all of the worker's problems can be managed including behavioral or motivational problems. The job simulation component also helps the worker work out anxieties over certain critical work demands and over returning to work.

Also if the worker is not truly interested in returning to work, the work hardening program can provide data for cases involving symptom magnification or malingering workers. Overall an effective work hardening program can benefit all the team members involved in a positive way.

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Quote of the Quarter

"Many of the great achievements of the world were accomplished by tired and discouraged men who kept on working."

Anonymous



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UPCOMING EVENTS

- July**
- 24 State of Alabama Dept. of Industrial Relations Workers' Compensation Seminar
- August**
- 24-26 Alabama Self Insurers Association (ASIA) Conference
- 25-27 2003 Governor's Safety and Health Conference
- September**
- 16 NASHRM Workshop
- 25 Shoals Safety and Health Association Annual Conference
- October**
- 2 ECHO's 12th Annual Symposium on Healthcare



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Teamwork

A Periodical for Providers and Clients of *Comp One®*

What is the Cost of Sleep Debt?



DEBBIE VAUGHN
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Which of the following situations cause a person to become sleepy: eating a heavy meal, monotonous driving, sitting in a warm room, listening to a boring lecture, or watching TV in a comfortable chair? The answer is: none of the above. These situations do not CAUSE sleepiness, they UNMASK existing sleepiness. A person who becomes sleepy in these situations has a "Sleep Debt."

We have a biological drive to sleep. Insufficient sleep causes an accumulated sleep debt, which manifests most obviously as daytime sleepiness or the inability to maintain alertness throughout the day. The quantity, quality, and timing of sleep are the interrelated factors that determine whether sleep is sufficient. Most adults need around 8 hours of sleep each night. Only one hour of sleep loss each night becomes almost an entire night of sleep debt in one week. Just as important as quantity is the quality of sleep. Highly prevalent and under-diagnosed are sleep disorders, such as sleep apnea, that disrupt the quality of sleep and cause a chronic high sleep debt unrelieved by extra sleep.

Sleep apnea is repeated airway

obstruction during sleep that requires the person's brain to arouse to restore breathing, often more than once a minute, whenever the person sleeps. Imagine someone shaking your shoulder once a minute whenever you sleep: sleep apnea causes a perpetual sleep debt. Many behaviors affect both the quantity and quality of sleep, such as caffeine use. The timing of sleep is also important because of our biological clock. It is much more difficult to get sufficient sleep if it must be obtained in the morning, when the body insists upon being awake. Further, the effect of sleep debt is much more profound in the wee hours, when the tendency to sleep

is inherently the highest. Sleep debt does not dissipate over time, but it can be masked temporarily by internal or external stimulation. External stimulation includes physical movement, caffeine and stimulant use, noise, light, and strong emotion. The effect of external stimulation on sleepiness disappears quickly once the stimulation is withdrawn. Internal stimulation is the effect of the biological clock; alertness is inherently highest in the morning and lowest late in the night.

It is possible to sleep sufficiently to reduce any sleep debt to zero and make further sleep

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Team Approach: Work



MARK MATZEK, PT
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Work Hardening is a therapeutic program designed to rehabilitate an injured worker with respect to his or her cardiovascular, musculoskeletal, respiratory and psychomotor systems. There is a strong emphasis on the functional abilities with the ultimate goal of returning the injured worker back to the work force. The worker's opportunity for successful rehabilitation is optimized when a

total team approach is used with the work hardening program. The team usually consists of the patient, the patient's family, the physician, the physical or occupational therapist, the employer, the rehab case manager, and the insurance claims adjuster. Studies have shown that patients who have completed work hardening not only have a high success rate of returning to the work force, these patients also have a lower incidence of re-injuring themselves as compared to the non-rehabilitated worker.

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Comp1One is a comprehensive case management company located in Huntsville, Alabama with clients across the Southeast. Comp1One and sister company, North Alabama Managed Care, Inc. (NAMCI) are divisions of Premier Health Networks of Alabama, LLC featuring PPO network access for direct medical cost savings in group health and workers' compensation.

Comp1One features 24 hour case management services with Certified Nurse Case Managers and the backing of our Board Certified Occupational Health Medical Director. Our nurses and physician are available for pre-certification, utilization management, file reviews, case referrals, peer reviews, and catastrophic injury management.

Comp1One is certified by the state of Alabama Department of Industrial Relations, is licensed and insured, and has been recognized for Best Practices in Injury Management in the state of Alabama.

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Legal Brief

From the Alabama Court of Civil Appeals: *Exparte Alabama Power Co.*, 12 ALW 19-11 (2011231). In this case, the court held that the trial cannot impose conditions on a FCE (functional capacities evaluation) that conflict with the recommendations of the authorized treating physician. Here, the claimant was treating with Dr. Richard Meyer, an orthopedic surgeon at UAB. Dr. Meyer recommended a FCE to determine the claimant's work restrictions. The employee failed to show up for four appointments to conduct the evaluation and his lawyer sent him to another, unauthorized doctor, for this testing. When Dr. Meyer refused to accept this unauthorized FCE, the plaintiff's lawyer filed a motion to have the FCE recommended by Dr. Meyer video taped. Amazingly, the trial court allowed it, in spite of Dr. Meyer's opinion that a videotape of his FCE would undermine the credibility of the testing. In reversing the trial court, the court of appeals considered the fact that the employer has a statutory obligation to provide adequate medical care to the claimant. Moreover, the trial court went beyond its authority in attempting to limit the treating physician's request. The appellate court also instructed the trial court to order the employee to appear for the FCE recommended by the treating physician. This case can apply to other medical issues...by extension, the employer can seek to challenge a trial court order which places burdensome restrictions on reasonable and necessary medical care.

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Company News



We are pleased to welcome Alesa Naymon as the newest addition to Comp1One's staff. Alesa has over 10 years experience in occupational health, billing/coding, and medical office management and will be assisting with case management and injury intakes.

WELCOME ALESA!

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What is the Cost of Sleep Debt? (continued)

impossible until some time has passed. Unlike calories, however, sleep cannot be saved up on our hips for later use! In this 24/7 society, it is not surprising that 40% of adults reported that "at least a few days a month they have experienced sleepiness during the day so bad that it interferes with their daily activities." [*National Sleep Foundation "Sleep in America" Poll, WB&A Market Research, March 2001*] A large enough sleep debt makes the drive to sleep almost overwhelming and sleep onset can occur rapidly and almost without warning. Fifty-three percent (53%) of poll respondents admitted to driving while drowsy within the past year, and 19% admitted to dozing off while driving, with approximately 100,000 crashes per year related to drowsy driving.

Sleepiness is not the only consequence of sleep debt. It causes reduced job performance, increased accidents, cognitive deficits, emotional problems, relationship difficulties, physical ailments, and disease risk. The National Transportation Safety Board reports that the primary cause of serious transportation accidents is employee fatigue. An estimated 20-30% of the \$131.4 billion total year 2000 cost of workplace accidents and injuries were related to fatigue [*Martin Moore-Ede, "The Twenty-Four Hour Society"*]. Two-thirds (2/3) of workers say that sleep debt negatively affects their work performance [*NSF, "Sleeplessness, Pain, and the Workplace", Louis Harris and Associates, 1997*]. The findings of this poll were used to derive an \$18 billion per year estimated cost of lost productivity related to sleep debt. Further, more than half of respondents in the survey stated that family relationships (58%) and overall health (66%) were somewhat or very much affected by sleep loss. Sufficient sleep serves to rest and restore the body and the mind. Some hormones are dispatched only during sleep, and chemicals are released that repair or replace damaged cells. Sufficient sleep improves mood, motivation, patience, and satisfaction with life and relationships. It increases alertness and productivity and reduces accident risk. It improves the ability to concentrate, make decisions, solve problems and tolerate stress. It is also thought that long-term memory is established during sleep. Sufficient sleep enhances the immune system and digestive function and reduces disease

risk.

The high costs of sleep debt are paid by society, organizations, and individuals, but these costs can be reduced. Make sufficient sleep a daily priority for everyone. Recognize and treat sleep disorders that contribute to sleep debt. Re-engineer jobs to reduce the risk of employee fatigue. And tonight, get a good night's sleep.

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Sleep Deficit Quiz

How much sleep debt are you carrying around? To get a rough idea, answer the following questions, which are part of the Epworth Sleepiness Scale. Rate each using the following scale:

- 0 - would never doze
- 1 - slight chance of dozing
- 2 - moderate chance of dozing
- 3 - high chance of dozing

(Circle One)

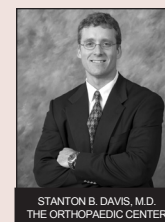
1. Sitting and reading: 0 1 2 3
2. Watching TV: 0 1 2 3
3. Sitting, inactive in a public place: e.g., a theater or a meeting: 0 1 2 3
4. As a passenger in a car for an hour without a break: 0 1 2 3
5. Lying down to rest in the afternoon when circumstances permit: 0 1 2 3
6. Sitting and talking to someone: 0 1 2 3
7. Sitting quietly after a lunch without alcohol: 0 1 2 3
8. In a car, while stopped for a few minutes in traffic: 0 1 2 3

Total points:

- 1 - 6 Congratulations, you are getting enough sleep!
- 7 - 8 Your score is average
- 9 and up Seek the advice of a sleep specialist

Clinical Comments

KNEE INJURIES IN THE WORKPLACE



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The knee is one of the more commonly injured joints of the body in all age groups. Soft tissue injuries of the knee typically occur in sports but also result from activities at work, resulting in significant limitations and lost time. Knee injuries can occur from overuse, as the result of repetitive small loads, or from an acute traumatic overload to the knee. Prompt diagnosis and treatment of these injuries is important to prevent or reduce long-term disability.

The knee is a mobile joint. It bends much like a hinge but also rotates slightly. Bending the knee enables us to perform many activities such as climbing, sitting, kneeling and walking efficiently. The knee is composed of three bones and numerous soft tissue structures. The femur (thighbone) rests on the tibia (shinbone) and the patella (knee cap) glides in a groove on the front of the femur. The bones are covered by a pearly white articular cartilage that allows the knee to move smoothly.

There are numerous soft tissue injuries that can occur to the knee. The most commonly injured structures are the ligaments and cartilage. Ligaments function like checkreins to stabilize the knee and prevent abnormal motion. There are four major ligaments in the knee: one on each side (collateral ligaments) to prevent excessive side-to-side motion and two that cross in the center of the knee (cruciate ligaments) that prevent excessive forward or backward motion. The anterior cruciate ligament (ACL) is the primary restraint to anterior displacement. ACL injury occurs with a rapid deceleration or rotational injury to the knee. Injury is usually associated with an audible "pop" and swelling. Associated injuries to other ligaments, the menisci or the articular cartilage are not unusual. X-rays are needed to rule out fractures, while an MRI may aid in assessing associated injuries and planning treatment. If left untreated, an ACL tear can lead to recurrent episodes of giving way, causing meniscal and articular cartilage damage with eventual knee arthritis and dis-

ability. The cruciate ligaments have a poor healing potential because of their location in the center of the knee. Thus people with associated meniscal or ligament injuries or those who participate in moderate to high levels of activity are considered for surgical reconstruction. Functional bracing can be used in patients who wish to avoid surgery but are at risk for episodes of giving way. The persons desired activity level is more important than their age when deciding whether to recommend surgery. Cruciate reconstructions require approximately 6 months for complete revascularization and return to unrestricted activity, but frequently people may return to modified duties much sooner, especially with a protective brace.

The medial collateral (MCL) and lateral collateral (LCL) ligaments limit side-to-side movement and are injured by a direct force to the side of the leg. The MCL is more commonly injured and evidenced by laxity, localized bruising and swelling on the inner side of the knee. Because of its location on the sides of the knee with a good blood supply, MCL injuries heal readily with non-surgical

care. Early treatment in a hinged-knee brace, and rehabilitation are keys to early returns to previous levels of activity. The brace may be necessary for 6 to 8 wks, depending on the degree of injury. Further treatment options may include injection of platelet-derived growth factors, which has been shown to improve healing.

One of the most commonly injured parts of the knee is the meniscus. Although there are two types of cartilage in the knee (meniscal and articular), the meniscus is the structure usually referred to as "the cartilage". It is a wedge-like cushion that curves like the letter "C" on both sides of the knee and functions to distribute load evenly with weightbearing. The meniscus may tear by twisting the knee, pivoting, cutting or decelerating. In the older working population a meniscal tear can occur with minor trauma, such as with squatting or kneeling, as the cartilage weakens over time. This episode may be followed by swelling,

popping, giving way or locking of the knee. Most people can still walk on the injured knee and many keep working. Initial treatment for a torn meniscus is usually to reduce pain and swelling. For continued symptoms, arthroscopic surgery is required to remove the torn portion of the meniscus or to repair the tear. When the knee is locked, arthroscopy may be required immediately to remove the mechanical block; long delays in treatment may cause permanent loss of motion. Because even partial meniscectomies can predispose the knee to arthritis, meniscal tears should be repaired whenever possible. Repairs can be attempted when the tear is within 5 mm of the capsular attachment or when combined with an ACL reconstruction where higher healing rates are seen. Accelerated rehab protocols allow immediate motion and weightbearing. Unrestricted activities are frequently permitted at 3 months for a repair and less than 6 weeks for a total or partial meniscectomy.

Because most meniscal tears are not suitable for repair and meniscectomy is known to increase the risk of arthritis, allograft meniscal transplant has gained favor as a way to possibly prevent premature wear and tear of the joint. This is a technically demanding procedure but the evidence shows good graft healing at the repair site.

The goal of treatment after any knee injury is to protect the joint from any acceleration of wear and tear, while returning the person to regular activity quickly. Many knee conditions can be treated conservatively with these desired results, but some require surgery. Current treatment philosophies include restoration of joint stability, repair or replacement of damaged menisci, and protection or restoration of the articular cartilage. These methods work to reduce abnormal loads on the joint and enhance longevity of the injured knee. Prompt diagnosis and treatment of knee injuries is vital in speeding recovery and reducing long-term disability.

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