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1. What is ergonomics?  
Ergonomics comes from the Greek words for work (Ergo) and laws (Nomos). It is the science of how people work and interact with their tools, equipment, machinery, and environment. In the workplace, ergonomics focuses on preventing musculoskeletal disorders (MSDs) through evaluating and improving the design of the work environment. The main goal of ergonomics is to **design the job to better fit the worker**. It applies the fields of medicine, engineering, and behavioral sciences to determine how MSDs occur in the workplace and to find ways to prevent MSDs that employees will use.

2. How does ergonomics apply to an office? 
The science of ergonomics identifies **risk factors** for injury in the office and finds solutions that reduce or eliminate employee exposure to these risk factors. Ergonomics applies principles in the fields of human physiology, biomechanics, and anthropometry to the design of the office environment. Some common design issues to which ergonomics is frequently applied are:

- Determining the range of adjustability for a workstation or chair that will accommodate 95 percent of the user population
- Identifying which workplace risk factors contribute to the overall risk of an individual developing a MSD
- Reducing employee exposure to common risk factors such as static and awkward postures, repetitive motions, and contact stress through changes to work processes and improvements in furniture, equipment, and office accessories

3. Are there any national standards on the ergonomic design of offices? 
Yes. In 1988, the American National Standards Institute (ANSI), along with the Human Factors and Ergonomics Society (HFES—formally the Human Factors Society), published ANSI/HFS 100-1988. This was the first attempt to develop a technical standard that specifies conditions that represent acceptable implementation of human factors engineering principles and practices in the design of computer workstations, associated furniture, and the office environment in which they are placed.

In 2007, the standard was updated to reflect advancements in technology and increased human factors knowledge. The updated standard, called ANSI/HFES 100-2007, Human Factors Engineering of Computer Workstations, can be purchased from the HFES Web site at [http://www.hfes.org/](http://www.hfes.org/). Since this is a technical standard, much of the information is quantitative, using numbers to represent acceptable design criteria. Because of the technical nature of the publication, the standard recommends that implementation and assessment of performance with the standard be performed by trained and knowledgeable human factors engineers and ergonomists.

Another design standard for office furniture is the Business and Institutional Furniture Manufacturers of America (BIFMA) publication BIFMA G1-2002 Ergonomic Guidelines for VDT (Visual Display Terminals) Furniture used in Office Work Spaces. Published in 2002, this is a guideline for furniture intended for computer use in the United States and Canada. It applies the measurable principles and design requirements of the International Standards Organization (ISO) 9241 parts 3 (“Visual display requirements”) and 5 (“Ergonomic requirements for office work with visual display units”). BIFMA states it has not attempted to develop an ergonomic standard of its own. Instead, it has chosen to provide a guideline that applies ISO principles. A copy of the standard can be ordered from the BIFMA website at [http://www.bifma.com/index.html](http://www.bifma.com/index.html).
4. What are musculoskeletal disorders (MSDs)?

Musculoskeletal disorders (MSDs) are injuries and illnesses to the soft tissues and bones of the body. They include muscle strains, ligament sprains, joint and tendon inflammation, low-back pain, and certain nerve disorders such as carpal tunnel syndrome. MSDs that can affect office workers are:

- **Tendonitis**—Inflammation of the tendons. Typically, this occurs in the hands/wrists, elbows, and shoulders
- **Tenosynovitis**—Inflammation of the synovial sheaths that surround the tendons in the hands
- **DeQuervains syndrome**—A specific type of tenosynovitis that occurs when the tendon sheaths at the base of the thumb become inflamed
- **Carpal tunnel syndrome**—Compression of the median nerve, usually in the carpal tunnel (wrist canal), resulting in numbness, tingling, pain, and loss of grip strength
- **Epicondylitis**—Tendonitis in the elbow. When this occurs on the lateral or outside of the elbow, it’s called lateral epicondylitis, also referred to as “tennis elbow.” When it occurs on the inside of the elbow, it’s called medial epicondylitis, or “golfer’s elbow.”
- **Cubital tunnel syndrome**—Compression of the ulnar nerve where it passes through the bony notch (cubital tunnel) in the elbow. Symptoms of cubital tunnel syndrome include numbness, tingling, pain, and loss of grip strength.
- **Shoulder bursitis**—Inflammation of one or several bursa sacs in the shoulder. These sacs release fluid into the joint to help lubricate it.
- **Rotator cuff tendonitis**—Inflammation of the rotator cuff tendons in the shoulder
- **Rotator cuff tear**—A tear in one or more of the four muscles or tendons that make up the rotator cuff in the shoulder
- **Neck tension syndrome**—Low-level isometric contraction of the trapezius muscles in the neck
- **Low back pain**—Damage to the soft tissues (usually to the discs and/or nerves) in the lumbar region resulting in symptoms ranging from dull aching, muscle tightness, or burning sensations to sharp, intense pain accompanied by numbness and tingling down the buttocks, legs, and feet. Symptoms radiating below the lumbar region are usually due to impingement of the sciatic nerve also called sciatica (See sciatica below).
- **Sciatica**—Compression of the sciatic nerve that branches off at the base of the spine and runs down the back of the legs to the feet. Symptoms include numbness, tingling, and pain in the buttocks, back of the legs, or feet.
5. What causes MSDs?  RETURN TO TOP

Musculoskeletal disorders are caused by exposure to certain non-occupational or occupational risk factors. Non-occupational risk factors include both personal risk factors and home-life risk factors. Personal risk factors are disorders and diseases such as diabetes and rheumatoid arthritis, or medical conditions such as obesity and pregnancy, that can predispose an individual to developing a MSD. Home-life risk factors are activities such as certain hobbies (e.g., knitting, cross stitching, video games) and recreational sporting activities that have also been associated with an increased risk of developing a MSD.

Occupational risk factors for MSDs include repetitive motions performed while doing a job, excessive force from lifting materials or using hand tools, awkward postures, and hand and whole-body vibration. In an office work environment, common risk factors include:

• Working in a static posture (holding the body or a body part in one position) for long periods of time
• Performing repetitive movements (e.g., data entry) for continuous periods
• Working in an awkward posture (e.g., typing with the wrist in a flexed posture, viewing a computer monitor with the head tilted back, etc.) for long periods of time
• Placing contact stress on soft tissues (e.g., resting the wrists on a hard, sharp desktop edge when typing or using the mouse)

6. What causes carpal tunnel syndrome?  RETURN TO TOP

Carpal tunnel syndrome (CTS) is caused by compression of the median nerve, usually in the wrist carpal tunnel (the narrow, rigid passageway surrounded by ligaments and bones and through which all the tendons, nerves, arteries, and veins leading to the hand pass). Compression of the median nerve can be caused by inflammation of surrounding tissues such as tendons, or fluid retention related to certain medical conditions such as pregnancy. Additional medical conditions such as diabetes, rheumatoid arthritis, and hypothyroidism can affect the nerves and make them more vulnerable to disorders such as CTS. A person may be predisposed to CTS because of anatomical differences in the size of the carpal tunnel. Occupational risk factors most strongly associated with the development of CTS are repetition, handgrip force, and hand/arm vibration from certain tools. The risk is greatest when an employee is exposed to all three of these factors simultaneously.

7. When should an employee report symptoms of an MSD?  RETURN TO TOP

Most musculoskeletal disorder symptoms occur gradually and get progressively worse over time if left untreated while an employee continues to perform the same work. Therefore, it’s important to recognize these symptoms early and seek medical treatment before a minor ache requires major surgery.
8. How much does a typical musculoskeletal disorder cost?  

At Pinnacol Assurance, the average cost of a computer-related MSD claim for an office worker from 2002–2008 was $5,368. This cost includes medical treatment, lost-time wages, and any disability settlements such as temporary total or permanent partial disability payments. However, this represents only part of the cost. Additional costs an employer may incur—hiring temporary labor, sick-leave payments, training time for temporary labor or a new hire, reduced production and quality, and an increase in insurance premiums—can be two to five times the direct costs of the claim. For an average claim, that could mean actual costs to an employer of $10,736 to $26,840. For an average carpal tunnel claim, the direct costs climb to $9,430 and, when combined with associated indirect costs, can total $18,860 to $47,150.

9. What is the most important feature of an ergonomic workstation?  

A high-quality chair can make up for many deficiencies found in the rest of the workstation. Considering the amount of time an employee may spend in his or her chair at a computer, a well-designed chair can be a good investment in terms of reducing the risk of an MSD, reducing employee fatigue and discomfort, and increasing productivity. The key to ergonomic task seating is adjustability, since the chair should fit the largest percentage of employees no matter what their height, weight, or body type. The chair also should have excellent padding in the seat, backrest, and armrests. For a complete list of characteristics of an ergonomic chair, see the “Purchasing Office Seating” fact sheet in the “Downloadable Resources” section of this guide.

10. What should someone look for when purchasing an ergonomic office chair?  

The key to ergonomic task seating is adjustability, since the chair should fit the largest percentage of employees no matter what their height, weight, or body type. The chair also should have excellent padding in the seat, backrest, and armrests. For a complete list of characteristics of an ergonomic chair, see the “Purchasing Office Seating” fact sheet in the “Downloadable Resources” section of this guide.

If you have a very large and diverse workforce, you will probably want to consider a chair model that comes in at least three sizes—petite, medium, and large. Before you purchase, you should always try to obtain a demo model of the chair that you can use in the office for employees who will get the new chairs. Most reputable chair vendors will provide demos, free of charge, if you ask. Have each employee use the chair for a day or two and provide feedback on likes and dislikes. Make sure the chair fits the range of users in your office. Employee feedback and input into the purchasing process can be extremely valuable in ensuring employee satisfaction with whatever chair is ultimately purchased.

11. Are armrests necessary on an office chair?  

The importance of armrests on a task chair has been debated for years, but more research has led to increased evidence to support their use in most cases. Research shows that armrests, when positioned properly, can significantly reduce muscle loading (the constant contraction of muscle groups around a joint that can damage soft tissues) in the shoulders, neck, and upper back of an employee who is typing and using a mouse. Armrests provide considerable support for the upper extremities and torso when an employee is sitting in his or her chair reading or talking on the phone. This means less stress on the lower back. In fact, employees who request to have their armrests removed often end up complaining of back pain because they’re missing the extra support for their arms and torso that they didn’t realize they used. Armrests are also important for providing support when getting out of a chair. For employees who may have limited leg strength or get up and out of their chair dozens of times per shift, armrests assist in the sitting and standing process.

The key to choosing a chair with good armrests is adjustability to fit a range of users, which is why height, lateral, and swivel/rotational adjustments are recommended (see the “Purchasing Office Seating” fact sheet in the “Downloadable Resources” section of this guide for more details). Being able to adjust the armrest to the correct position to allow neutral arm posture is key. In addition, the armrests should have excellent padding to avoid any contact stress with soft tissues. In most cases, armrests should only be removed if they are not adjustable, are not well padded, and interfere with getting the chair close to the desk.
12. Where can I find a good office chair?  

Start by reviewing the “Purchasing Office Seating” fact sheet in the “Downloadable Resources” section of this guide. It will help you identify the most important features of a quality ergonomic chair. The fact sheet references six chair manufacturers that meet selected criteria:

- Bodybilt: Various models [www.ergo4me.com](http://www.ergo4me.com)
- Haworth: Zody [www.haworth.com](http://www.haworth.com)
- Herman Miller: Aeron, Ambi, Ergon3, Mirra [www.hermanmiller.com](http://www.hermanmiller.com)
- Humanscale: Freedom task chair [www.humanscale.com](http://www.humanscale.com)
- Neutral Posture: NP Series and some task chairs with options [www.neutralposture.com](http://www.neutralposture.com)
- Steelcase: Leap, Criterion, Drive [www.steelcase.com](http://www.steelcase.com)

These chair manufacturers are a good place to start your research. Most of their Web sites have a section where you can find the vendor closest to you by zip code. Some stores like the Healthy Back store, [www.healthyback.com](http://www.healthyback.com), may carry chairs from several of these manufacturers and are a good place to look at several different chair brands in one place. Home Office Solutions, [http://www.homeofficesolutions.com/](http://www.homeofficesolutions.com/), is a Web-based retailer that carries several of these lines and is good place to compare prices and features.

13. Are fitness balls a good substitute for an ergonomic chair?  

Although use of a physical therapy or fitness ball for office seating has become popular in the last few years, long-term use of a fitness ball as a replacement for an ergonomic task chair is not recommended. Some doctors prescribe fitness balls for their patients with back pain who sit at a computer for long periods of time, and because fitness balls allow the user to change positions more frequently, they may be beneficial intermittingly for a few hours a day. However, fitness balls should not be used long term in place of an ergonomic chair for several reasons:

- Since the user’s core group of muscles (abdominals and low-back extensor muscles) have to be active in order for the user to balance on the ball while seated, these muscles may become overused or fatigued during an eight-hour shift. These muscles need to be able to relax and recover throughout the day, which is difficult if the user is sitting on the ball for eight hours.

- Using a therapy ball exclusively for seated work does not provide back support, which is essential to support the core muscles so that they can relax and recover. Although there now are chairs with backrests that are made to provide a base for a therapy ball, these chairs don’t provide the type of back support that allows the weight of the trunk to be fully supported. This means that sitting on a therapy ball will, over the course of a day, fatigue the core muscles much faster than a chair with a backrest, resulting in a forward, hunched-over posture which increases stress on the lower back.

- Fitness balls cannot easily be adjusted to the proper keyboard/mouse height. Although balls come in various sizes and can be inflated and deflated, there is not a simple way to raise or lower the user to the proper height. As a result, the user is much more likely to be working at an incorrect keying/mousing height than if he or she were using a pneumatic, height-adjustable task chair.
14. Where can I find a good selection of ergonomic furniture, equipment, and accessories?

There are several Web-based retailers with a good selection of furniture, equipment, and accessories in one spot, which allows easy browsing and comparison. Listed below are some of the larger retailers:

- AliMed—[www.alimed.com](http://www.alimed.com)
- Ask ErgoWorks—[www.askergoworks.com](http://www.askergoworks.com)
- Ergonomic Design Inc.—[www.ergodesign.com](http://www.ergodesign.com)
- ErgoDirect—[www.ergodirect.com](http://www.ergodirect.com)
- Ergoware—[www.ergoware.com](http://www.ergoware.com)
- Office Organix—[www.officeorganix.com](http://www.officeorganix.com)
- OfficeSafe—[www.officesafe.net](http://www.officesafe.net)

The following is a list of systems furniture manufacturers that provide a variety of modular office configurations and layouts:

- Allsteel—[www.allsteeloffice.com](http://www.allsteeloffice.com)
- Details—[www.details-worktools.com](http://www.details-worktools.com)
- Haworth—[www.haworth.com](http://www.haworth.com)
- Herman Miller—[www.hermanmiller.com](http://www.hermanmiller.com)
- Hon—[www.hon.com](http://www.hon.com)
- Steelcase—[www.steelcase.com](http://www.steelcase.com)
- Teknion—[www.tekus.com](http://www.tekus.com)

To find a dealer near you, go the manufacturer's Web site and find the dealer locator section.

If you want to take a look at a product before buying, consider the Healthy Back Store for chairs and accessories, and electronic/computer and office supply stores such as Best Buy, Office Depot, Office Max, or Staples for computer keyboards, mouse devices, and assorted input devices.
15. What should I look for when purchasing an ergonomic desk?  

The first question you should ask yourself is whether the desk will be free standing or part of a modular furniture system such as an office cubicle. This may be dictated by building design or architectural constraints, as well as cost and compatibility with existing interior design standards, space, or furniture. There are some ergonomic advantages to modular furniture systems, mainly related to the ability to modify desk heights and configurations based on an individual employee and his or her job requirements. For example, if you just hired a new accountant who is 6 feet 4 inches tall and have to place him at a traditional, free-standing desk (designed for the average-height male of 5 feet 9 inches), he will most likely not be able to work in a comfortable, neutral posture. In this case, you will have to look at either raising the freestanding desk (which is not easy to do safely); swapping with another desk; or purchasing a new desk. With modular furniture, in most cases you can raise the existing desk surface several inches without having to make any additional modifications to the desk. The problem with most freestanding desks is that they typically only come in a standard height (usually 28–30 inches), do not adjust in height, and come in limited configurations. You will have to look at specialized desks to get height adjustability and different configurations, which will cost more. Whatever you decide, ask yourself these questions before you purchase:

- Will more than one employee use the desk? If so, adjustability becomes a more important consideration. The larger the number of employees who use the workstation and the higher the turnover in the job, the more you will want to have an adjustable workstation, since fixed-height workstations rarely accommodate a range of different users. Adjustable height keyboard trays and/or desk surfaces, therefore, are recommended for customer service workstations, dispatch, and dedicated software application systems where many different users may have to access a workstation that contains a unique application not found elsewhere in the office.

- Is the employee right- or left-handed? This will be a factor in setting up the layout of the workstation. Ideally, a right-handed worker in a L-shaped configuration should have his or her reading and writing surface on the right side of the computer workstation, while left-handed users should have it on the left side. If a workstation is used by multiple users, or if the job has high turnover, the best solution is a configuration that places the computer in the corner of an L-shaped, 45-degree corner unit rather than a 90-degree unit. Placing the computer in the corner provides a return on both sides of the user, accommodating either a right- or left-handed user. The 45-degree corner unit has a straight edge, which provides a continuous surface to support the keyboard and mouse, and allows the employee to get his or her chair closer to the keyboard and mouse than a 90-degree corner unit. In addition, it's common that 90-degree corner units do not match in height at the seam, creating an unbalanced keyboard or slightly higher mouse position.

16. What is the purpose of a split (ergonomic) keyboard?  

Split keyboards, sometimes called ergonomic keyboards, are designed to keep the wrists straighter when typing. On a standard keyboard, a touch typist must hold his or her wrists at an angle (called ulnar deviation) in order to keep the fingers on the home keys. Splitting the keyboard down the middle and placing the keys at a slight angle reduce ulnar deviation, causing less stress on the muscles and tendons in the forearm and wrist and possibly reducing pressure inside the carpal tunnel. Most split keyboards also slightly slope the angle of the keys downward from the center of the keyboard. This helps reduce stress on the muscles and tendons in the forearm and wrist.

However, split keyboards are not for everybody. For employees who use the “hunt and peck” method of typing, or who are petite, a split keyboard can create additional problems. Since the keys are a little harder to find on a split keyboard, a “hunt and peck” typist may spend more time looking down at the keyboard. This puts additional stress on the neck. The situation is compounded on keyboards that have a more aggressive tent angle (a steeper downward slope of the keyboard from the center), which makes keys harder to see. For petite users, the extra space down the center of the keyboard requires the hands to move farther from the center of the keyboard, resulting in elbow winging. This places additional stress on the shoulder, neck, and upper back. As with most ergonomics accessories, an evaluation of the workstation and employee is important in finding the right match.
17. What should I look for when purchasing a mouse? 

With a traditional mouse, the user must grasp the mouse with the palm down and move the mouse with a combination of muscles in the hand, forearm, arm, shoulder, and sometimes neck and upper back. The mouse also may cause the back of the hand to extend towards the user, increasing stress on the tissues in the wrist. In addition, the user must to rest his or her wrist and possibly forearm on the desk or mouse platform. Since any product can call itself “ergonomic,” there is no guarantee it was designed to prevent soft-tissue injuries. Therefore, it’s important to ask whether the mouse you are considering is designed to accomplish the following:

• Reduce some or all of the palm-down position by placing the hand closer to the neutral “hand shake” posture
• Reduce smaller, repetitive movements at the wrist
• Reduce wrist extension
• Reduce contact stress from resting the wrist on a hard desk or platform surface or edge
• Provide additional functionality that reduces repetitive motions such as clicking and dragging (e.g., providing a scroll wheel or programmable buttons)

Here are examples of mice that have some or all of these features. This list is not comprehensive, since technology and products constantly evolve:

- **Logitech MX and VX series of mice**: These mice are shaped to promote a more neutral hand posture, provide support for the hand that may reduce contact stress, and have programmable buttons and a scroll wheel.
- **Microsoft Natural Laser Mouse**: This mouse is shaped to promote a more neutral hand posture, slightly elevates the hand off the desk reducing contact stress, and has programmable buttons and a scroll wheel.
- **Contour Perfit Mouse**: This mouse is shaped to promote a more neutral hand posture, comes in different sizes to fit various sized hands, and has programmable buttons and a scroll wheel.
- **Evoluent Vertical Mouse**: This mouse promotes the handshake posture and has programmable buttons and a scroll wheel.
- **AirO2bic Mouse**: This mouse promotes the handshake posture; has a built-in platform to support the wrist, which may reduce contact stress; and allows the mouse to be moved without gripping it. It also has a scroll wheel.

18. What are the pros and cons of a mouse vs. a trackball?

Using a traditional mouse can create problems for power users (see question 17). A trackball can reduce risk factors for exposure to repetitive wrist motions by allowing the wrist to remain relatively stationary. It also may reduce contact stress by providing a built-in platform for the hand and wrist. Some trackballs may reduce contact stress by requiring the user to elevate his or her hand off the desktop when using. For users with a lot of wrist, arm, or shoulder discomfort from repetitive movement when using a traditional mouse, a trackball may help keep the wrist, arm, and shoulder more stationary, thereby reducing stress on these joints.

Users thinking about switching from a mouse to a trackball should be aware that dexterity is required, since manipulation of the trackball is performed with the fingers. Use of a trackball can require some practice before a user can work at the same speed and control as with a mouse. Some trackballs require use of the thumb, so users should avoid overuse, since the thumb is not designed to perform repetitive fine motor control movements for long periods.
19. **What are the options for input devices other than a mouse or trackball?**

There are several options to consider if a traditional mouse or trackball have not been effective at reducing an employee’s pain or discomfort. A touchpad is one alternative that reduces the need to grasp a mouse or trackball. Touchpads are available as a stand-alone device such as the Adesso Smart Cat touchpad [http://www.adesso.com/products.asp?categoryid=5](http://www.adesso.com/products.asp?categoryid=5), which is placed in the same location as the mouse or trackball, or can be integrated with a keyboard such as the Adesso Win Touch Pro [http://www.adesso.com/products.asp?categoryid=7](http://www.adesso.com/products.asp?categoryid=7). Most of the keyboard/touchpad combos have the touchpad located below the space bar in the center of the keyboard. This may help employees with shoulder symptoms who might benefit from keeping their elbows closer to the body when manipulating the input device, rather than abducting (winging out) the shoulder to reach for the device. For graphic designers and CAD engineers, greater control and fine manipulation are required with the input device; therefore, an ergonomic puck is preferred. Pucks are usually similar in shape to a mouse. The Contour roller mouse [http://www.contourdesign.com/rollermouse/](http://www.contourdesign.com/rollermouse/) is a unique device that uses a roller bar to control the pointer. The device sits in front on the keyboard where a wrist rest is placed and includes a scroll wheel and four programmable buttons. Like the combined keyboard/touchpad device, the roller mouse allows the user to keep his or her hands centered in front of the keyboard, reducing the need to abduct the shoulders to reach for a traditional mouse or trackball. Additional, but less common, devices include a foot-activated pedal and a motion sensor device that can be attached to the head, allowing manipulation of the pointer through head movements.

20. **Do office stretching programs really prevent MSDs?**

Taking short, frequent stretching and recovery breaks every 30 minutes helps reduce static loading (holding the body or body parts in one position with little or no movement) and repetitive work and allows the body to recover throughout the day, reducing fatigue and overuse. Short, frequent breaks that include specific stretches aimed at lengthening shortened, tight muscles are more beneficial than longer stretch breaks performed every four hours or more. However, shorter, more frequent recovery breaks—sometimes referred to as micro breaks—take more employee discipline or require constant reminders, such as an alarm or pop-up software, to remind employees to stop work every 30 minutes and stretch. Established breaks mid morning, afternoon, or evening in which employees perform group exercises and stretching routines can help reduce stress and break up monotonous tasks—which also can help reduce the risk of MSDs. Some combination of short, frequent recovery breaks and group stretching and exercises once per shift or every other shift is probably the most effective approach.

The best stretches for computer users are those that stretch muscle groups that get shortened and tight as the result of sitting in a hunched over, static posture for long periods and allow muscles in the forearm to relax, thereby increasing blood circulation. See the fact sheet “12 Stretches and Exercises for Computer Users” in the “Downloadable Resources” section of this guide for a list of exercises and stretches for the whole body.
21. What are some good software products that will remind employees to take breaks?

Shorter, more frequent stretching and recovery breaks (e.g., one- to two-minute breaks every 30 minutes) are more beneficial than one or two longer breaks over an eight-hour shift. Good software products are available that will automatically notify an employee when to take a break and demonstrate effective stretches. The need to remind an employee when to stop working often is the biggest obstacle to taking more frequent, shorter recovery breaks during the day. Software, which can be set with a pop-up alarm or notice, can be helpful. The following software products allow the administrator to set how often the notice is given and provides demonstrations for various exercises and stretches:

- Cardinus: [www.cardinus.com](http://www.cardinus.com)
- Magnitude: [www.magnitudetechnology.com](http://www.magnitudetechnology.com)
- Para Technologies: [www.paratec.com](http://www.paratec.com)
- Worksafe BC (free download) - [www2.worksafebc.com/Topics/Ergonomics/resources.asp?ReportID=33863#worksafe_sam](http://www2.worksafebc.com/Topics/Ergonomics/resources.asp?ReportID=33863#worksafe_sam)

22. What is the best way to set up a workstation if an employee uses a laptop?

See the fact sheet “Ergonomic Tips for Laptop Users” in the “Downloadable Resources” section of this guide for some quick tips on how to set up a workstation properly for an employee who uses a laptop.

Questions?

Contact your safety consultant at 303-361-4000 or 1-800-873-7242.