# Ergonomics Strategies for Healthy Backs!

# Bodies and Basketballs

## Bodies and basketballs have something in common

## Both need to be RESILIENT!

## What can we do to help ourselves be more resilient?

# Ergonomics Strategies for Healthy Backs!

## Working Smarter, Not Harder!

# Ergonomics Strategies for Healthy Backs!

## Working Smarter, Not Harder!

## What does that mean?

# Ergonomics Principles

## Neutral Position

## Reach Zone

## Power Position

## Fatigue Control

## Tools and Equipment

# 30 Day Challenge

## Come up with 5 changes

## Work on them for 30 days

## YOU decide if it made a difference!

# Neutral Position

# Promote Neutral Position and Support

## Foundation of the body?

### Is it the feet?

## Consider if a person sprains an ankle?

### Pair of crutches they still get around

# Promote Neutral Position and Support

## What if person “sprains” their back?

### Significant problem even getting out of bed to get to the bathroom!

# Neutral Position: Spine and Pelvis

## Spine neutral position

## S-shape (side view)

### Inward curves in low back and neck

### Outward curve in midback

## Spring-like shape

### Deal with compression and shear stresses

### Stone fence concept

# Neutral Position in Action!

## Work Position Before

### Issues?

### Ideas?

# Neutral Position in Action!

## Work Position After

# Neutral Position in Action!

## Work Position After

### What do you think?

# Reach Zone

# Reach Zone: Arm’s Length

## Where we use hands to do work

### How long hold 10# load at arm’s length?

### Gets heavy fast!

### Hold it as close to body as you can

# Reach Zone: Operating range

## Reach Zone

### Determined by arm’s length

### Sphere

# Reach Zone: Operating Range

## Look at this example

## Working in his Operating Range!

# Power Position

# Power Position: Power Zone

## Power Zone

### Related to Reach Zone

### Handle largest loads

## Green Zone

### Mid-chest to mid-thigh level

### Close to body as possible

## Yellow Zone

### Caution

## Red Zone

### Limit/avoid manual material handling

### Mechanical handling equipment

# Power Position

## Lift or move parts, containers, equipment

### Neutral Position best position?

### As it turns out – it’s not!

## Power Position is better way to go!

### Feet shoulder width or slightly wider

### Good footing so you don’t slip

### Spine maintained in neutral

### Hips and knees bent slightly

### Head and shoulders upright

# Sports ‘Ready Position’

## Used in just about any sport as ‘ready position’

## Probably have used it yourself

# Power Position at Work

## How about at work?

### Lifting materials

### Using tools and equipment

### Setting up work area

# Power Position: Water Fountain

## Drink at the water fountain!

## Rather than just bending over at waist with knees straight

## Use Power Position

## Give it a try!

# Power Position and Lifting Techniques

## Do Lifting Techniques have an impact ?

## Ask professional weightlifters – what is more important

### Strength or Technique?

## Technique!

# Power Lifting Basics

## Planning

### Think lift through

### Know where load will end up

### Decide if manual or power equipment

## Get help if needed

### Good communication

### Partner: Lift in unison

# Power Lifting Basics

## Planning

## Critical component to any material handling

# Power Lifting Basics

## Base of support

### Shoulder width

### Stagger foot stance

### Good footing

## Build a Bridge

## Power Lift technique

### Feet wide

### Maintain neutral spine

### Keep load close

### Good grip

### Look UP!

# Manhole Cover Removal

# Fatigue Control

# Fatigue Control at Work

## Word “Control” and not “Eliminate”

### Physical fatigue is normal occurrence

### Not possible to eliminate fatigue

### Recognize and control effects of fatigue

## Personal Health and Wellness

### Recover from day’s fatigue

### Rest, hydration, nutrition and exercise when not at work

# Fatigue Control: Recognize Fatigue

## Recognize fatigue at work?

### Muscle tiredness

### Decrease in general physical strength and coordination

### Make mistakes

### May be more likely to experience injuries

# Fatigue Control Strategies

## Control fatigue?

### Mix up job tasks

### Breakup larger task into smaller tasks

### Drink plenty of fluid

### Appropriate recovery breaks during shift

### Replenish energy supplies

### Stretching to promote blood circulation and joint lubrication

# Fatigue Control: Warm-up

## Warming up prior to physical activity

### Lifting

### Pushing

### Tool/Equipment use

## Recovering from physical activity

### Replenish energy supplies

# Back Bend

Back Bend Stretch

# How Should You Warm-up?

## Absolutely have to follow Doctor's orders for any restricted activities

## Technically correct

## Energy Input/Output

## Neutral Position

## Joint Noises

## Don’t hold breath

## Regular and Consistent

## Intensity/Controlled Stretching

# Tools and Equipment

# Correct Tools and Equipment

## What does “Correct” Mean?

### Apply ergonomics principles

## Can job be performed

### In reasonably neutral positions?

### Within acceptable Reach Zones?

### Within Power Position?

### With adequate technique?

## If YES . . . more than likely it is correct

## If NO . . . need to understand why not and make appropriate changes!

## Impact driver

# Correct Tools and Equipment

## Impact driver

# Power Over Manual!

## Remember the safest lift is . . . the one you don’t do!

### Tools and Equipment

# Problem Solving!

## Every day we make decisions how best to accomplish our job tasks

## All about problem solving!

## Coming up with better methods

# Strategies for Healthy Backs!

## Work Smarter, Not Harder!

# Strategies for Healthy Backs!

## Integrate principles into day-to-day routines

## Practice for next 30 days!

## Never too late to find out for yourself!

# Thanks for your Time and Attention!

# Ergonomics Strategies for Healthy Backs!

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