Before You Begin

Before beginning the presentation, review with the participants the reason why they are in this training which is for the purpose of learning ways and strategies for creating an injury-free workplace.

Some participants may wonder why creating an injury-free workplace is important to them. You can create a discussion around this idea by asking "*Who can give me a reason why it would be important to create an injury-free workplace?*"

Reductions in injuries, accidents, and occupational hazards or illnesses leads to increased productivity and reduction in costs. It not only benefits the employer and industry, but the employee and community.

Below are examples of what some participants may share.

- Decrease of fear/anxiety on the job
- Decrease risk of job loss
- Increase in job efficacy
- Increased Profit which leads to:
    - Ability to hire new staff (increase workforce)
    - Ability to offer pay increases
    - Ability to make a contribution to the economic welfare of community
    - Increased community involvement/goodwill
- Increased Employee morale
    - Decreased anxiety of leadership/management
    - Increased productivity (positive feedback loop)

    - Less turnover
- Increase in supply of goods
- Increase cost passed on to consumer
- Increase competitiveness in global market
- Potential for new customers
- Decreased medical expenses
- Decreased insurance rates
- Decreased workmen compensation costs
- Less turnover (lower hiring and training costs)
- Increased profit margin
- Timely equipment upgrades

Let's Begin

Slides 1-3 

Begin the presentation by welcoming everyone and establishing the ground rules.

Sample Ground Rules:

- Everyone participates.
- Everyone listens.
- If you have an unanswered question, you write it down on post-it note and place on flip chart on the wall.

Slide 4 

Following the establishment of ground rules, state the module objectives.

Next, have learners participate in an introductory ice breaker. Have each participant go around the room, introduce themselves, and share what ergonomics means to them.

After everyone has introduced themselves, proceed to Slide 5.

Slide 5 - 6 

Review the definitions and explanation of ergonomics highlighted on the slides. Some of this information may have already been shared by participants. If so, affirm their responses. For example, "As Judi shared, ergonomics is about how to fit the work to the worker."

Slide 7 

Certainly if participants work in the poultry industry, they are familiar with OSHA. To create some discussion, ask participants if anyone has been personally involved with an OSHA inspection and would like to share their experience.

Slide 8 

This slide introduces some of the things that can happen if ergonomics in the workplace is not used or considered. Depending on the timeframe, the facilitator could take 5 minutes to create some discussion of the above items and how participants interpret them. This is an opportunity to refer back to the goal of an injury free workplace and its connection to their own quality of life, i.e., ability to provide for their family, pay their bills.

Slide 9

Review slide.

Slide 10

Review slide. Before proceeding to Slide 11, make sure that participants have an understanding of cumulative trauma.

Slide 11

Let the participants know that now that they have a clear understanding of ergonomics you will now discuss some of the factors involved.

Slide 12-18

For each factor, have participants share examples.

Slide 12

Force is an ergonomic stressor caused by lifting, pushing, pulling, grasping and pinching items in the work environment. Lifting heavy objects high, outside a person's normal range of reach, places force on the back as well as the neck and shoulders. Force is often required to handle and control equipment, tools, raw materials and finished products. Tasks that require forceful exertions that don't result in acute injury place higher loads on the joints and connective tissues. Prolonged or recurrent exertions of this type can cause feelings of fatigue and may lead to musculoskeletal problems when there isn't adequate time for rest or recovery.

For example, force required to make a particular cut either with a knife or scissors, can contribute to cumulative trauma disorders. Increasing the applied force increases muscle effort, decreases circulation to the muscles and causes greater muscle fatigue. Effort required to make a particular cut, either with a knife or scissors, can

depend upon the sharpness of the tool. A dull instrument requires more force or exertion and contributes to cumulative trauma disorders.

Forceful gripping may cause pressure on nerves from muscles or tendons, as may repeated movement. Hand and arm motions may include grasping, turning, applying pressure and pinching. These movements frequently result in stressful hand and wrist positions. Compression or pressure to nerves (and blood vessels) can also occur when tool handles are squeezed in the palm.

Slide 13 

Repetition involves performing the same motion or series of motions repeatedly as well as frequently. Effects of repetitive motions from performing the same work activities increase when awkward postures and forceful exertions are involved. Repeated applications of force that do not cause immediate damage can, over time, induce fatigue in our connective tissues and wear them out resulting in the cumulative trauma mentioned earlier. The longer the period of continuous work, the longer the necessary recovery or rest time required.

The speed of work may be determined by the speed of a conveyor belt. For example, in poultry processing, the faster the conveyor line, the more frequent is the requirement for the cutting of chicken (the repetition of a specific task). Jobs that require frequent repetition of the task cause muscles to contract frequently, requiring more muscle effort and less recovery time.

Slide 14 

There are postures that our joints can absorb more easily than others. The closer to the extreme of a joints range of movement, the less capable the joint is and

the more susceptible to injury. An extreme posture can cause stress in the joints reducing the blood flow.

Body postures that deviate from normal resting or neutral positions place unnecessary stress on muscles, tendons and bones are referred to awkward. Awkward postures include reaching above shoulder height, kneeling, bending the head over to look in hard-to-see areas, improper cutting and twisting the body while lifting. Awkward hand motions are sometimes used to separate meat from chicken bones. One hand may hold meat while the other hand is holding the knife to make a specific cut.

Static postures are those held for a long period of time that can place stress on the body, particularly if the posture is awkward. Static postures can accelerate the development of fatigue and discomfort.

Slide 15 

The body experiences stress when using vibrating objects such as tools or while standing on a vibrating platform. Vibration can lead to reduced blood flow to the exposed body part causing stiffness and numbness in the affected area. Vibration is the physical exposure to tools or machinery that moves back and forth really fast. Standing on a vibrating platform can lead to digestive and back disorders.

Slide 16 

Contact stress occurs with physical contact between the body and sharp or blunt edges of tools, equipment and products. This is a dynamic force applied to the body, like when you use a hammer. The body responds to impact stress by limiting blood flow to the exposed body part.

Slides 17 

In addition to the factors listed above other factors in poultry processing such as gloves and temperature are as important. Working with gloves that fit too tight restricts the blood flow to the fingers and cause numbness in the fingers; in addition, working with gloves that are too big limit dexterity and makes gripping more difficult. Gloves also increase the amount of force that a worker must exert in order to handle objects.

Slides 18 

In order to meet USDA requirements, product must be kept at 40 degrees as it moves through processing. This requires the product to be washed and cooled with cold water causing discomfort to workers who may experience poor circulation or musculoskeletal disorders in the hands. Exposure to temperatures below 66 degrees F for more than two hours can limit blood flow to the extremities, which can cause numbness and in the hands and fingers and reduces grip strength. PPE, such as rubber aprons and gloves, are recommended for these types of work areas.

Slides 19 

Review slide.

Slide 20 

Review slide. Before proceeding to Slide 21, have participants share what they think some of the early warning signs might be.

Slide 21 

Review slide.

Slide 22

Review slide.

Slide 23- Group Activity

Explain to participants that they will be making a body map and that a body map is picture that shows what part(s) of a worker's body are getting hurt, sick or stressed by their job.

Give participants the Body Mapping Activity Sheet and ask them to remember specific and personal work-related injuries, illnesses and stresses from the past or present. Participants can work individually or in pairs to show on the body map parts of their body that have been affected.

Ask each person to think about problems at their work that cause them to get hurt, sick or stressed. Have them mark that area on their body map. For example, a worker who gets sick from a chemical could put a dark green dot near the nose, where the chemical was breathed in. For occupational stress, some particpants could put a mark on the body's head or neck/shoulder if they feel pain there. Others could put a mark on the stomach to show stomachaches.

Give participants 10 minutes to draw their body maps and mark the affected body parts. After 10 minutes, ask each group to tape their map to a wall where everyone can see it. Ask someone from each group to explain their body map.
Ask the workers to find the most common injuries and illnesses that are on the body maps.

Option: Using a body map sketched on a flip chart in the front of the room, as participants share about their affected body parts, you can transfer the information to the body map on the chart.

Remind everyone that each mark is a possible hazard or problem in the workplace that needs to be fixed. The next step is to find out what these problems are so that someone can make a plan to correct them.

Slide 24-27 

Warm-up exercises and stretch breaks can also help relieve pressure. Using the excerpt from *A Guide to Safe Work Practices in the Poultry Processing Industry* from the North Carolina Department of Labor Occupational Safety and Health Division, model some exercises that workers might try. Give participants an opportunity to demonstrate the exercise as well.

The excerpt is only in English. If participants speak Spanish or Creole, use the scripts below to go through the exercises.

EXERCISE SCRIPT IN SPANISH

ESPALDA

ESTIRARSE PARA ARRIBA

Estire ambas manos sobre su cabeza alcanzando el techo, de puntitas. Estire por cinco segundos y relájese. Repita.

ESTIRE HACIA EL FRENTE

Estire tan lejos como pueda hacia el frente. Deberá sentir un buen estirón entre sus hombros. Estire por cinco segundos y relájese. Repita

ESTIRE HACIA ATRAS

Estire hacia atrás tan lejos como pueda. Deberá sentir un buen estirón en el pecho. Estire por cinco segundos y relájese. Repita.

DOLORES DE ESPALDA

Esto puede ser hecho en la orilla de la silla o parado. Ponga sus manos en la espalda baja y doble hacia atrás. Mantenga por cinco segundos y relájese. Repita.

CUELLO

BARBILLA

"POLLITO CURIOSO" mantenga su cabeza derecha y doble su barbilla hacia el cuello. Mantenga por cinco segundos y relájese. Repita.

OIDO A HOMBRO

Mueva el oído derecho hacia el hombre derecho. No haga trampa y mueva el hombro! Deberá sentir un estirón a lo largo del cuello y hombre. Mantenga por cinco segundos y relájese. Repita.

Después repita con el lado izquierdo.

HOMBROS

ENCOJA HACIA ARRIBA

Levante sus hombros hacia sus oídos. Encoja tanto como pueda y mantenga por cinco segundos. Después, déjelos caer y relájese.

CIRCULOS HACIA ADELANTE

Con los brazos relajados hacia los lados, levante y haga círculos hacia adelante. Relájese

CIRCULOS HACIA ATRAS

Después haga círculos hacia atrás. Relájese

ANTEBRAZO

ESTIRAMIENTO DE MUNECAS

Ponga el brazo derecho hacia adelante, con el codo derecho y la palma de las manos hacia abajo. Doble su muñeca hacia abajo con la mano izquierda para obtener un buen estiramiento al frente de su antebrazo.

Ponga ambas manos al frente de usted, enlace sus dedos y empuje sus palmas hacia afuera, lejos del cuerpo. Deberá sentir un estirón en la parte de adentro de su antebrazo. Mantenga por cinco segundos y relájese. Repita

MUÑECAS

CIRCULOS

Con ambas manos estiradas hacia los lados, dibuje un círculo con las puntas de sus dedos. Repita cinco veces en ambas direcciones (en sentido del reloj, y contra reloj)

MANOS

ESTIRAMIENTOS DE MANOS-dedos

Separe los dedos de ambas manos. Mantenga por cinco segundos. Relájese. Repita

ESTIRAMIENTO DE MANOS-pulgar (dedo gordo)

Suavemente estire el dedo derecho pulgar hacia abajo y afuera, con la mano izquierda. Mantenga por cinco segundos. Relájese. Repita. Después haga el mismo estiramiento para el pulgar izquierdo.

EXERCISE SCRIPT IN CREOLE

DO-Back

Léve men ou anlé

Lévé dé men ou anlè
Kanpé sou zotey ou
Rété la pou 5 sékonn
Relax, fè li anko

Détiré men ou dévan

Détiré men w'dévan w' jiskaské ou santi w'byen détiré nan zépol ou
Détiré pou 5 sékonn
Relax, répété anko

Détiré pa dèyè

Détiré men w'pa déyè
Eséyé fè ponyét ou kwazé, ou ap santil' nan l'éstomak ou
Détiré pou 5 sékonn
Relax, répété anko.

Détiré Do ou

Ou kapab fè sa kanpé, oswa chita sou pwent yon chèz
Mété men w' déyé senti w' kage pa déyé
Rété la pou 5 sékonn
Relax, répété anko

Epol –Shoulder

Monté ,Désann

Monté zépole ou bo zorey- ou
Kenbé li pou 5 Ségonn
désann li, Relax

Woulé dévan

Rélax ponyet ou bo kotéw'
Woulé zépole ou an won, Relax

Woulé pa déyè

Fè minm bagay la kounyé a pa deyè

<u>Kou –Neck</u>

Rantré Babine- ou

"Funky Chicken" Kenbé tèt- ou dwat épi
fè Babine ou touché lestomak ou, kenbé- li pou 5 ségonn,
Relax, Répété sa-a anko.

Zorey a zépol

Fè zorey dwat ou, Rivé sou zépol dwat ou
pa déplasé zépol-ou
si ou fè sa ou fè li mal.
Ou- ap santi bo kou goch ou détiré
Kenbé li pou 5 ségonn
Relax épi répété-l.
anko fè min-m bagay la
sou bo goch ou.

<u>Avant bra-ForeArms</u>

Kenbé ponyét dwat ou devan –ou
avek koud ou dwat
é men- ou atè.
Pliyé men- ou atè avék men goch ou.
Ou ap santi ponyét- ou byen détiré.
Kenbé- l pou 5 ségonn.
Répéte-l anko
épi fè- li avék lot ponyèt la.

Kenbé tou dé ponyét- ou devan- w
Rantré dwèt- ou youn nan lot
épi pousé pla men -ou pa déyo
Ou sipozé santi ponyèt- ou byien détiré
Kenbé- li pou 5 ségonn,
rélax épi répété- l anko

<u>Ponyét-Wrist</u>

Détiré- tou lè dé ponyét- ou akoté
É fé yo fè yon sèk
Répété-l 5 fwa
nan tou lé dé direksyon-yo.

<u>Men w'-Hand</u>

Détiré dwèt ou

Ekaté dwèt- ou
nan tou lé dé men- ou
Kenbé- li pou 5 ségond
Relax, Répété-l anko.

Détiré Pous- ou

Ralé pous- ou douseman
Kenbé- li pou 5 segonn
relax épi répété sa anko.
Réfè min- m bagay la avék lot pous la

Slide 28 – 31 – Check for Understanding 

These slides are for checking for understanding. Participants can answer questions by a show of hands or you can ask for volunteers.

Slide 28 – The correct answer is REPETITION.

Slide 29 – The correct answer is FORCE.

Slide 30 – All answers are correct.

Slide 31 – The correct answer is ergonomics.

Slides 32-33 

Wind Up/Take Away

End the presentation by asking if any participants would like to share a top takeaway. After everyone has shared, pass out the evaluation.

Ask participants to complete the evaluation form and return. At this time it is important to obtain the participant's commitment to a follow up evaluation in approximately 30-day where you can assess if the knowledge gain in training has had any impact on their workplace or practices.

It is critical that you capture valid and reliable contact information so that you can follow up for the impact evaluation.

Resources

Hogan Assessment Systems, The Meta-Analytic Correlation between the Big Five Personality constructs of Emotional Stability and Conscientiousness

North Carolina Department of Labor Occupational Safety and Health Division, A Guide to Safe Work Practices in the Poultry Processing Industry

Poultry Processing Industry eTool (http://www.osha.gov/SLTC/etools/poultry/)

http://www.oshainfo.gatech.edu/ergo-training/trainer.html

United Food and Commercial Workers International Union, A Safety Committee Guide for the Workplace, www.ufcw.org.

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