

Muscular Skeletal Pain and Ergonomics for Farmworkers

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Conflict of Interest Disclosure

I have no real or perceived vested interests that relate to this presentation nor do we have any relationships with pharmaceutical companies, biomedical device manufacturers and/or other corporations whose products or services are related to pertinent therapeutic areas.

Opioids and Pain





Injuries at Work: Ergonomics and Worker Safety

What are ergonomics?

The science of designing job tasks, equipment, machinery and workplaces to fit the worker.

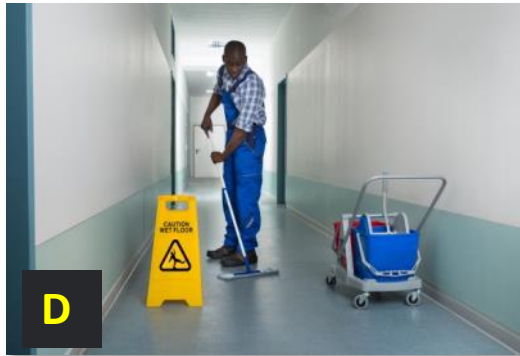
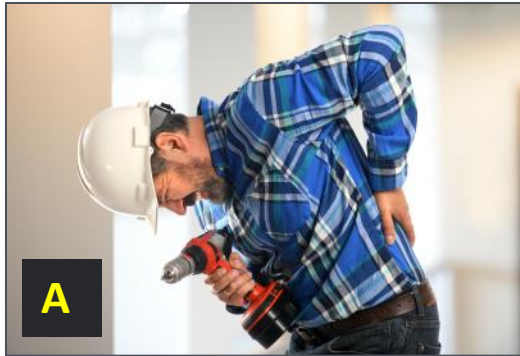
Lessen fatigue, increase productivity and reduce the number and severity of musculoskeletal injuries in the work place.

What are musculoskeletal injuries?



.....Injuries that affect the muscles, nerves, blood vessels, ligaments, tendons and bones.

What occupation are workers most at risk for musculoskeletal injuries?



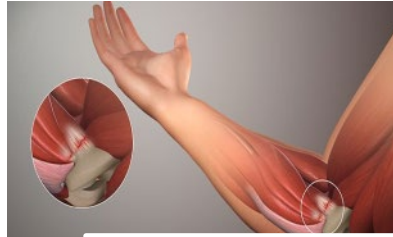
What occupation are workers most at risk for musculoskeletal injuries?

- ✓ All types of occupations can potentially cause injuries; it depends on the risk factors.
- ✓ Workers in different industries and occupations may be exposed to risk factors at work.
- ✓ Lifting heavy objects, bending, reaching, pushing and pulling heavy loads, working in awkward positions and doing tasks repetitively.
- ✓ These injuries are preventable.

Examples of injuries:



Carpal Tunnel Syndrome



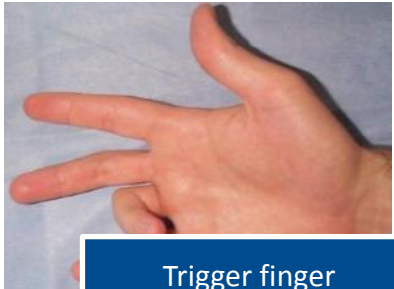
Tendonitis



Shoulder injuries



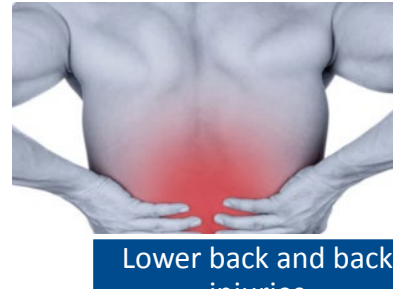
Knee injuries



Trigger finger



Muscle strain



Lower back and back injuries



Epicondylitis (elbow injury)

Where do we use ergonomics?

- ✓ At home:
 - Ergonomically correct door handles, trash bins and can openers
- ✓ At work
- ✓ Outdoors





Benefits of ergonomics

- Makes tasks easier
- Makes the work go faster
- Improves the quality of the work
- Reduces risk of injuries
- Reduces physical pain
- Reducing the risk for initiating opioid medication

Common causes



Lifting



Falling from ladders



Carrying



Bending over



Reaching



Risk factors:

Overexertion

Risk factors:



Pushing heavy carts or objects

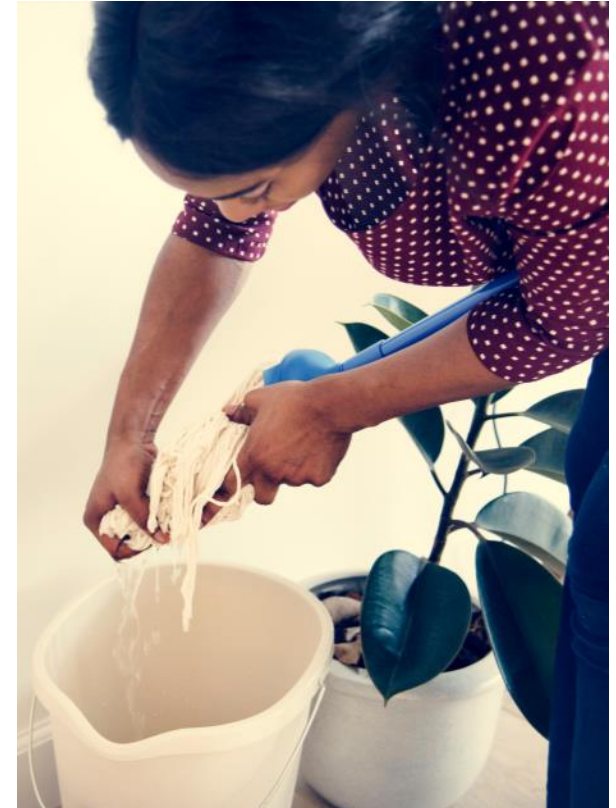


© Earl Dotter

Lifting heavy objects

Risk factors:

Awkward or uncomfortable postures





Repetitive activities

- ✓ Working on the factory line or in a meat-packing plant
- ✓ Sitting all the time
- ✓ Picking or packing fruit and vegetables
- ✓ Cleaning activities

Repetitive Motions



Being in the same position for long periods

Standing

Sitting

Squatting

Kneeling



Muscles do not rest during work

They are used for many tasks

Even the same arm or hand

Working extra hours without breaks

Long shifts





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Slips, Trips, & Falls

Injuries



Bone

Tendons

Muscles

Bone

Inflammation of
muscles and
tendons



Acute injuries

- Incident occurs only one time



Cumulative injuries

- Occur after a long time-
weeks, months, or years
 - Shoulder or neck pain
 - Wrist pain
 - Back pain

Back injuries can be...

The whole spine



**The lumbar spine
(the lower back)**

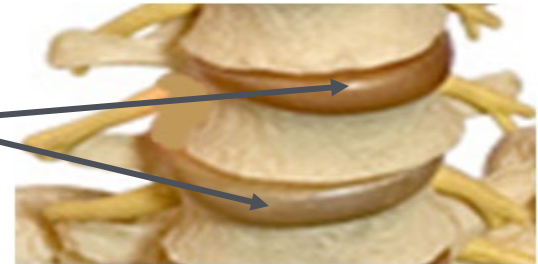
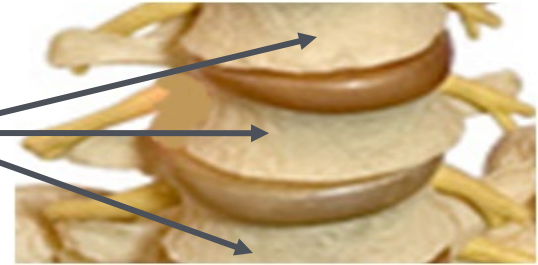


Discs

“Shock absorbers”
between vertebrae

Vertebrae


Bones that form and support
the spine



Symptoms of possible cumulative injuries

- ✓ Reduced flexibility and rigid joints
- ✓ Tingling in the hands and/or fingers falling asleep
- ✓ No symptoms at all



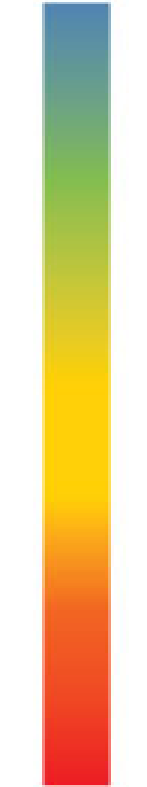
A woman with dark hair pulled back, wearing a blue and white striped shirt, is shown in profile. She has a pained expression and is holding her neck with both hands. The background is a blurred cityscape at night with warm, bokeh lights. The text is overlaid in the upper right corner.

Muscle pain that does not go away;
Weakness or fatigue in muscles

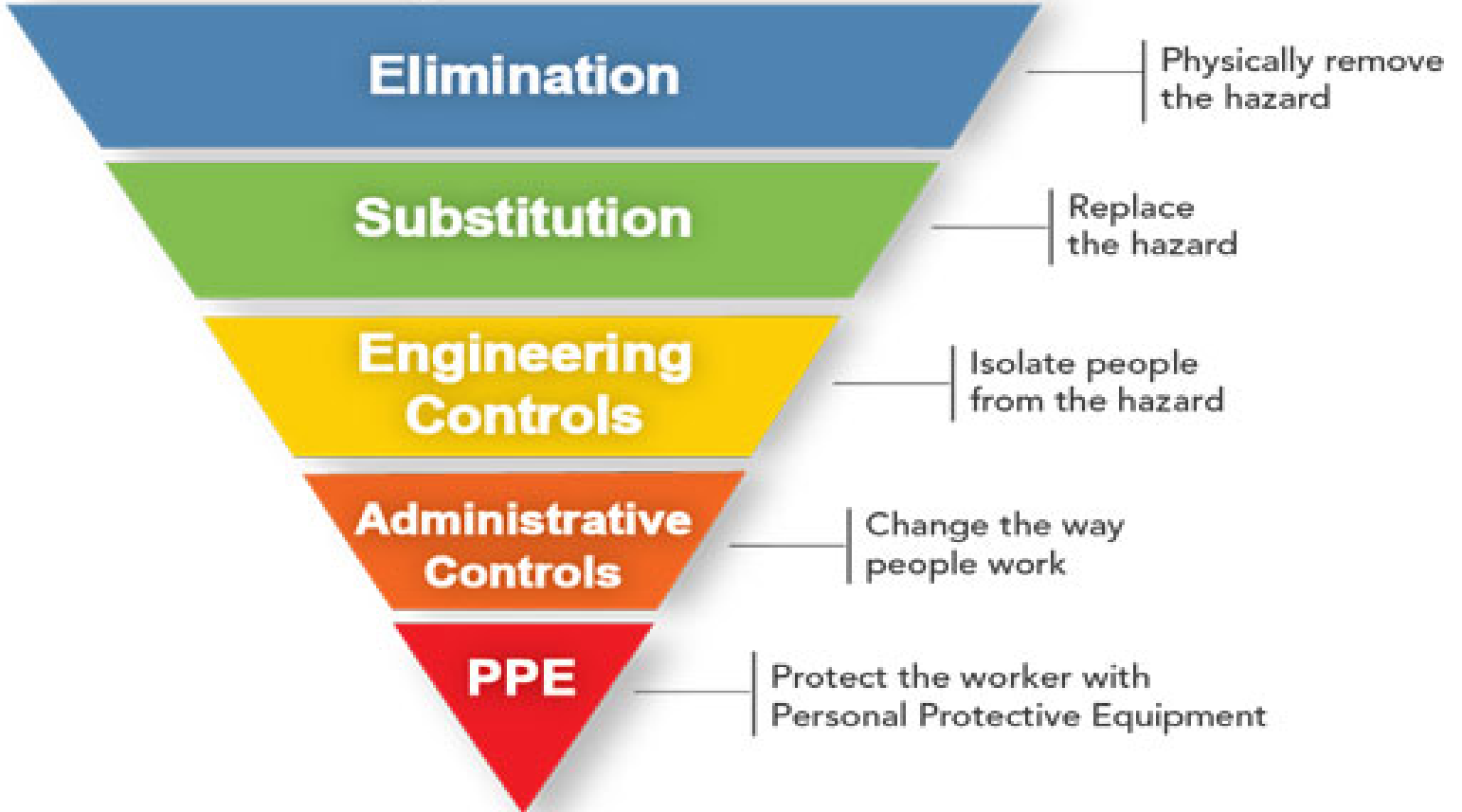
How can injuries be prevented?

Hierarchy of Controls

Most effective



Least effective





Long-handled rake



Photo © EAB

Short-handled rake

When carrying heavy loads...

- ✓ Store the heaviest or most commonly used items at a height between the hips and chest.
- ✓ Push with both hands.
- ✓ Balance the load evenly.





Good Postures



Cleaning tasks

Making beds (Lifting the mattress and putting the edges of the sheets under the mattress)

Good or **bad**?

Why?



- **Bending your body forward**
- **Twisting your back**

Is this method better?

Why? ... Why not?



- **No bending**
- **You are closer to the bed**

**Any ideas of
how to do it
better?**

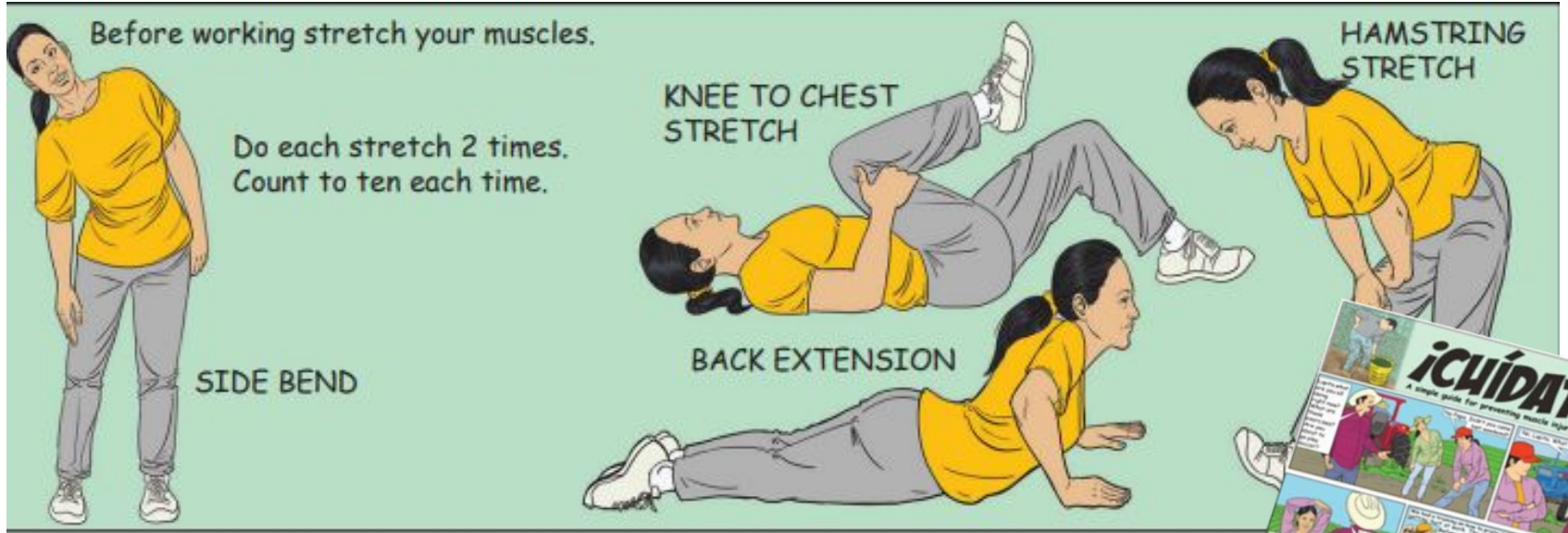
Wear the
necessary
protective
equipment:

Special belt for
carrying loads



Stay healthy and prevent injuries

Do warm-up exercises



© MCN – S. Saenz

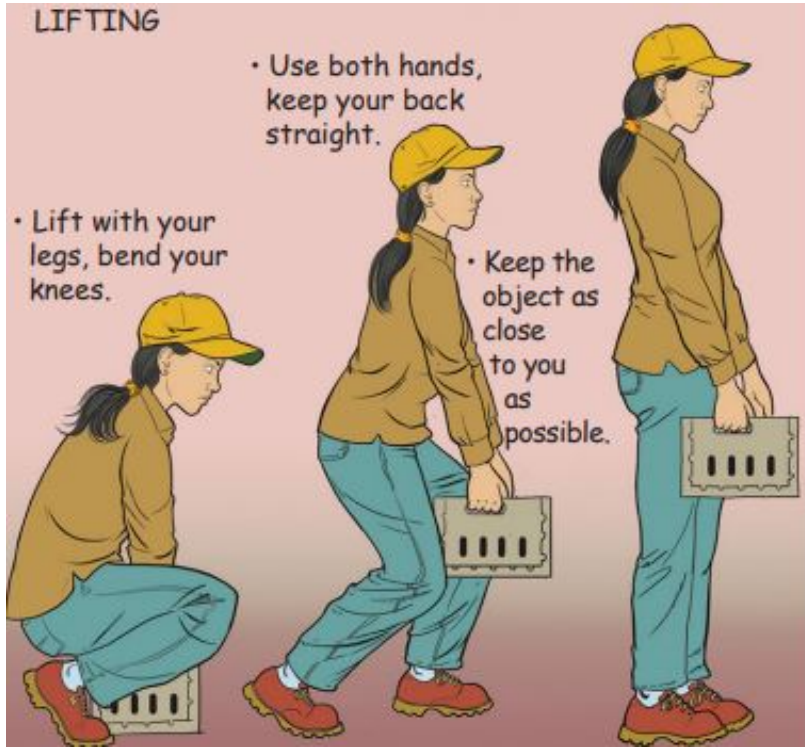


Stay healthy and prevent injuries

Wear comfortable and protective shoes



Prevent Injuries



- ✓ Try to work in comfortable positions
- ✓ Take short breaks
- ✓ Relax muscles
- ✓ Use a dolly to move and lift heavy objects
- ✓ Use your legs to lift

Strategies

- ✓ Know the job tasks that can cause injuries
- ✓ Understand the tools and workplace practices that can help prevent injuries
- ✓ Learn to recognize signs of musculoskeletal injuries
- ✓ Know the process and requirements for reporting injuries that can happen at work
- ✓ Report and resolve the problems that cause injuries



Furthermore...

Recommend that your patients talk to their supervisor or co-workers about any unusual pain or discomfort or ways to make the job easier.

Remind your patients that...

- Certain tasks and work practices can put stress on our bodies and injure us
- There are ways in which work can be done differently to reduce any opportunity to hurt ourselves
- Knowing about ergonomics can help make work easier
- Knowing their rights and responsibilities as workers helps protect them and stay healthy



Safety and
Occupational Act
(OSHA 1910)

Workers' Rights

Workers Compensation



- Medical treatment for injured patient
 - Immediate
 - Long term
 - Access to Specialty Care
- Wages
- Return to Work
- Prevention - Hazard Control
- Public Health
 - Surveillance

Workers' Compensation?

- Requirements differ from state to state.
- To learn about the regulation and any state visit workerscomphub.org/navigating-system



How can you help?

- ✓ See the worker and refer them to appropriate medical treatment for the injury.
- ✓ Make sure the worker explains to the clinician that the injury occurred at work, and when, where and how the injury occurred.
- ✓ Even if the injury happened a long time ago.



Your role in promoting worker
health and safety



Education



Interpretation/
Translation



Knowledge Broker



Health System
Navigator



Community Leader



Change Agent

How to train workers about health and safety

- Do your homework
 - Learn about their work
 - Search for appropriate or additional resources
- Use participatory education
- Build on the workers' knowledge
- Demonstrate how to use PPE



¿CÓMO PROTEGER A SU FAMILIA DE LA EXPOSICIÓN A PESTICIDAS

Los trabajadores del campo pueden hacer varias cosas para **proteger a su familia** de la exposición a pesticidas:

- Quite los zapatos de trabajo antes de entrar a la casa.
- Nunca lleve pesticidas del trabajo a la casa. Nunca mezcle los pesticidas a ervasas de otros productos (como refrescos).
- Lave su ropa de trabajo con detergente y agua caliente antes de usarla. Lave la ropa de trabajo separada de la ropa de la familia.
- Cubra el asiento de su carro con una lona cuando viaje. Contaminada con pesticidas.
- Lávese las manos lo dese un baño y cambie su ropa de trabajo antes de tocar a sus hijos.
- Dese un buen baño y póngase ropa limpia lo más rápido posible después de llegar a casa.

RECUERDE
Los venenos entran a nuestro cuerpo por:
• NARIZ
• BOCA
• PIEL
• OJOS

Y los niños tienen más riesgo. Además de estar en desarrollo, ellos comen, respiran y toman más líquidos en comparación con su peso y estatura que lo de un adulto. Además, hacen muchas cosas con las manos y la boca. Así es como los venenos que quizá estén en la comida, en los juguetes o en el suelo se absorben por la piel o entran por la boca.

SEGURIDAD Y SALUD EN EL ÁMBITO LABORAL PARA LOS TRABAJADORES AGRÍCOLAS | FOLLETO 7






Resources



OSHA DATOS DE PELIGROS
Fichas de datos de seguridad para la comunicación de peligros



Migrant Clinicians Network - Lista de Recursos 2018

Recursos de MCN sobre seguridad en el trabajo y los químicos		
	Aunque Cerca... Sano- Manual de Entrenamiento sobre Pesticidas Inglés: http://bit.ly/2e9sv1 Español: http://bit.ly/2dxDuEH	Material educativo sobre pesticidas dirigido a los trabajadores comunitarios y a los padres de familia sobre diferentes formas de proteger a sus hijos de exposiciones a pesticidas.
	Lo que bien empieza... bien acaba http://bit.ly/1k3PUtm	Libro cómico que busca reducir el riesgo a las exposiciones por pesticidas en mujeres en edad reproductiva
	Safety and Health on the Farm Inglés: http://bit.ly/2hwZy8 Seguridad and Salud en la Granja Español: http://bit.ly/2mboJ5e	Libro cómico bilingüe que presenta información sobre la compensación y los derechos y responsabilidades de los trabajadores inmigrantes que trabajan en las lecherías
	Seguridad en Palabras Español: http://bit.ly/2wtEX5 Safety in Words Inglés: http://bit.ly/2wtEX5	Diccionario Grafico Bilingüe de MCN, "Seguridad en Palabras/ Safety in Words", que ilustra los riesgos en el lugar de trabajo y las mejores prácticas de salud y seguridad en la agricultura.
	Seguridad en las Lecherías Español: http://bit.ly/2wtEX5	Currículo sobre la salud y la seguridad de los trabajadores inmigrantes en las lecherías con el objetivo de reducir los peligros en el lugar de trabajo y mejorar el conocimiento y las prácticas de los trabajadores.
Recursos de OSHA		
	Ley de Seguridad y Salud Ocupacional 1910 (Ley OSH) https://www.osha.gov/law-regs.html	Esta página contiene enlaces a todos los estándares actuales de la OSHA, información sobre el proceso de reglamentación usado para desarrollar normas de salud y seguridad en el trabajo, e incluye enlaces a todos los avisos del Registro Federal que están abiertas para hacer comentarios. Incluye enlaces a la Ley de Seguridad y Salud Ocupacional de 1970 (Ley OSH) y otras leyes pertinentes.
	Derechos de los trabajadores https://www.osha.gov/Publications/3473workers-rights-spanish.pdf	Folleto en español que explica los derechos y responsabilidades de los trabajadores
	Equipo de Protección Personal https://www.osha.gov/CoshDoc/data_General_Facts/jppe-factsheet-spanish.pdf	Esta publicación provee un repaso general de los derechos de los trabajadores conforme con la Ley de seguridad y salud ocupacional.

Resources

- Prevention resources for agricultural workers - <http://farmworkercliniciansmanual.com/index.php/patient-education-resources/prevention-tools/>
- Comic book about the prevention of musculoskeletal lesions: “¡Cuídate!” – <http://www.migrantclinician.org/toolsource/resource/jcuídate.html>
- “Ergonomic Guidelines for Manual Material Handling” - <http://www.cdc.gov/niosh/docs/2007-131/pdfs/2007-131.pdf>
- Ergonomics and communication training for employees: Instructional material. Universidad de Puerto Rico, Recinto de Ciencias Médicas. Susan Harwood Training Grant SH-24925-13-60-F-72
- <https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/Pages/Ergonomics.aspx>

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Thank you for your participation!

