



**Ergonomics Awareness  
Grants and Awards  
2015-2016**

# The Ergonomics Team

## Service Providers

- Suzanne Bade: MHealthy Medical Ergonomics
- Sarah Cooney: OSEH
- Bridget Daly: MHealthy Medical Ergonomics
- Naomi Gilbert: MHealthy Medical Ergonomics
- Christopher Kahle: Dearborn
- Pamela Koczman: OSEH
- Gary Kupfner: UMHHC Safety Management Services
- Michael Lane: Flint
- Brenda Myers: UMHHC Safety Management Services
- Tom Perez: Dearborn
- Laura Rometsch: Flint
- Amie Rush: UMHHC Safety Management Services

# Goal

## Reduce risk factors related to Musculoskeletal Disorders

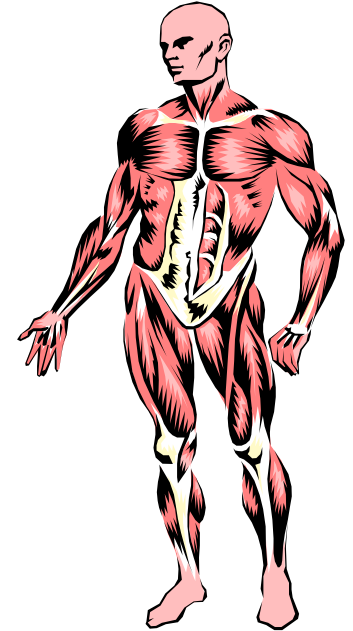
- Sprains, Strains, Pain
- Back, Neck, Arm, Leg, Vision, Sensation

## Issues/Risk Factors

- Postures, Repetitive Movement/Sustained Postures, Force, Contact Stress, Temperature, Vibration

## Risk Reduction via

- Personal Habits, Administrative Controls, Engineering (Equipment)



# Ergo Departmental Awards (T=14)

## Gold - Plaque and Celebration(3)

- ❖ Ann Arbor – Information and Technology Services/Cart
- ❖ Ann Arbor – Plant Hospital Maintenance – Plumbing Shop/Cart
- ❖ UMHS - UMHS MedSport (Domino's Farms)/Tape Winder



# Ann Arbor/ITS Tech Depot

**Plaque for Outstanding Contribution** - In recognition of your transition from awkward racks to rolling security carts to minimize the need to lift and move equipment. Before, technicians were repeatedly moving heavy equipment from carts to racks and from the racks to back to the carts in order to pickup, store, and deliver hardware.

**Before:** Non moveable shelves and carts.

**After:** Custom rolling security carts; less lifting and carrying



# UMHS/UMH MedSport (Domino's Farms)

**Plaque for Outstanding Contribution** - In recognition of your design and implementation of an automated bandage wrapping device.

**Before:** Awkward,  
Repetitive



**After:** Automated



# Ann Arbor/Plant Hospital Maintenance Plumbing Shop

**Plaque for Outstanding Contribution** - In recognition of your design and modification of carts to allow piping to be easily transported across campus.

**Before:** Lots of lift and carry for pipes that did not fit on carts in elevators

**After:** Custom carts carry pipe at an angle; less lift and carry



# Ergo Departmental Awards: Silver

## Silver - Certificate of Recognition (3)



## Received a Hero Certificate instead of a generic one

- ❖ UMHS – Cardiac Surgery: Installed long handled tool to reach call lights over patient beds
- ❖ UMHS – Interpreter Services :Added wheeled case to transport items around the hospital
- ❖ Ann Arbor – Information Technology Services: Dept. re-design with adjustable furniture



# Ergo Departmental Awards: Bronze

## Bronze - Letter of Commendation (8)

### Sit/stand workstation

#### Note: Received a Hero pin and a letter

- ❖ Ann Arbor – Office of VP and Gen. Counsel Fleming
- ❖ Ann Arbor –Office of Financial Aid
- ❖ Ann Arbor – Learning Health Sciences
- ❖ Ann Arbor - Business Engagement Center
- ❖ UMHS – Anesthesiology Back and Pain
- ❖ UMHS – Dermatology
- ❖ UMHS - Canton Call Center
- ❖ UMHS – Hospital Administration



# Ergo Grants

- **Dept.** annual competitive application process
  - Over \$116,000 requested for 51 projects. Funded projects with \$45,000 central fund. Dept. cost sharing nearly doubles the impact.
- **Individuals** with medical accommodation needs
  - \$10,000 fund to cost share with departments for medical ergonomics clients needing significant equipment purchase to meet their work and medical needs. Maximum offer of \$200 per client, and only if accommodation cost exceeds \$400.

# UMHS/Diagnostic Radiology & Recovery Patient lift

## Before



**Before:** At risk for fall moving patient from one place to another (bed to scan table, wheelchair to bed, bed to toilet, etc.) as well as reducing staff injury due to manually moving patient without device.”

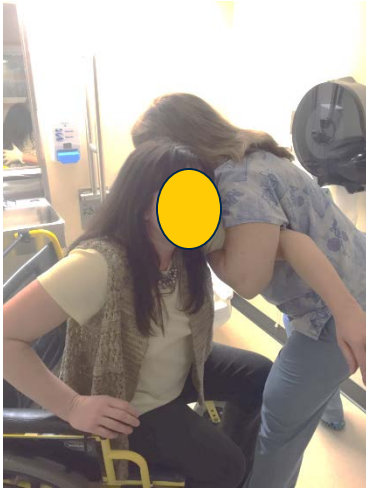
## After



**After:** “ [There was been an} Increase in staff satisfaction around safe patient handling”

# UMHS/Taubman Center Neurology Patient lift

## Before



**Before:** “The lack of quick access to lift devices has resulted in staff resorting to manual lifting of patients when patients are in need of toileting.”

## After



**After:** “Staff feel more secure assisting patient in exam rooms and toilet transfers. ”

# Flint/Early Childhood Development Center Child Care adjustable Buggies

**Before**



**Before:** “On our current buggies the handle is positioned so it's difficult to hold and cramps up teacher's hands. Front wheels wobble terrible in the front of our current buggies..”

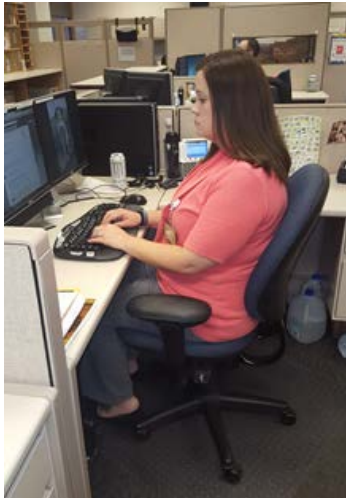
**After**



**After:** “...Reports of less stress on the knees and lower back, due to less bending over, because of how the children’s seats rotate outwardly.”

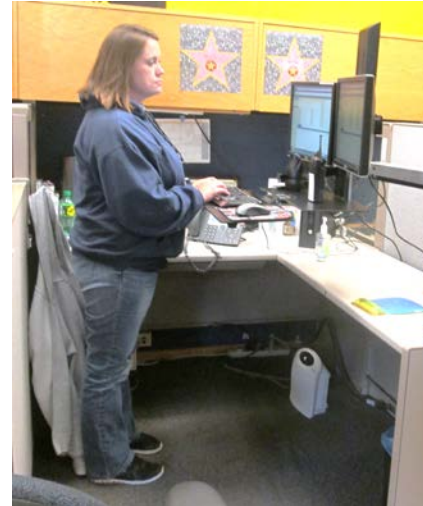
# AA/Plant Ops Call Center Sit stand workstations

## Before



**Before: “Phone agents are forced to sit at their desks all day. I would like to provide sit to stand workstations.”**

## After



**After: Reduces sustained, repetitive postures for those who cannot otherwise move more at their workstations.**

# UMHS/Chelsea Health Center Adjustable Stools

## Before



## After



**Before:** “The current stools are hard to move up and down ...you need to turn the stool upside down and turn the actual seat.... The stools need to be adjusted frequently. The current stools also have no back support.”

**After:** “[The stools have] improved job satisfaction since the work area can now be adapted to their height. The new stools are working great. ” Note: EEs are encouraged to move in close and sit tall.

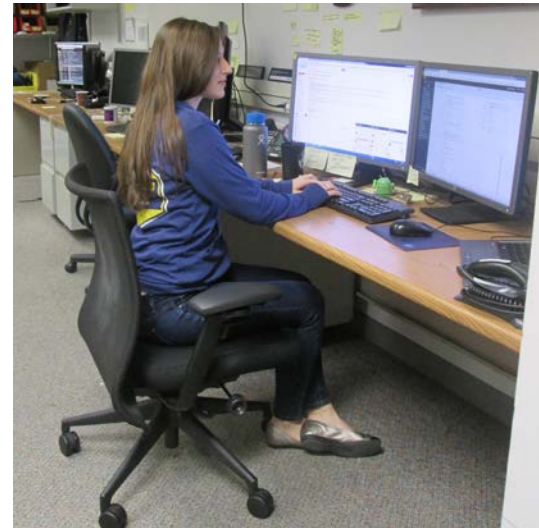
# AA/ITS – Tech Depot Adjustable Chairs

## Before



**Before:** “All chairs within the tech depot do not have height adjustments. The chairs that do have height adjustments are mostly broken. There are team complaints of an uncomfortable work environment.”

## After



**After:** “...several positive feedback comments and an overall increase in productivity and workplace satisfaction.” “I used to have shoulder pain, since we have received these new chairs, I have not had any.” “I feel a lot less stress on my back with these new chairs.”



# UMHS/Gifts of Art Cart and Light-Weight Drills

## Before



## After



**Before:** “The current (cart) is extremely heavy and cumbersome to move due to the weight and lack of handles. It must be pushed from the top deck.... We also need to replace our heavy, outdated power drills. We have to reach high to drill in hardware and it is difficult to hold the heavy drills.”

**After:** “..the handles on tool cart are a great improvement and the wheels are much ...easier to push. (Staff) have been very happy with the lighter drills, especially when doing highly repetitive tasks.”

# AA/Taubman College of Architecture Power Stacker Cart

## Before



**Before:** Some of these shipments are incredibly heavy (hundreds of pounds to over a ton) and the workers generally lift the pallets/shipments off the truck and place them on the ground...to lift heavy objects off a truck bed are awkward. I've seen workers wincing in pain from these activities. ”

## After



**After:** “This grant is great! ...the power stacker we purchased is just one example of the way proper tools and equipment can make a difference. ”

# AA/Psychology Electronic Pipettes

## Before



**Before:** “The primary pieces of equipment used in our core facility are manual pipettes. I try to take breaks during the repetitive pipetting motion throughout the day. I stretch my hands. . . [and] move around as much as possible.”

## After



**After:** “...eliminates the repetition endured by manual pipettes and it provides more accurate results.”

# AA/Construction Services – Glass Shop

## Tilt top glass cutting table

### Before



**Before:** “When glass is transferred from a truck to our existing cutting tables or from our cutting table to our truck a lot of physical strength and unnatural movement is required. ”

### After

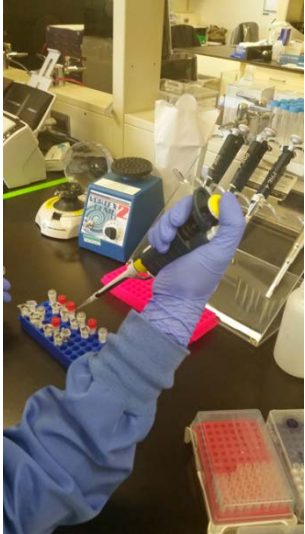


**After: Reduces awkward postures and forceful exertion**

# UMHS/Pathology Molecular Diagnostics (*Traverwood*)

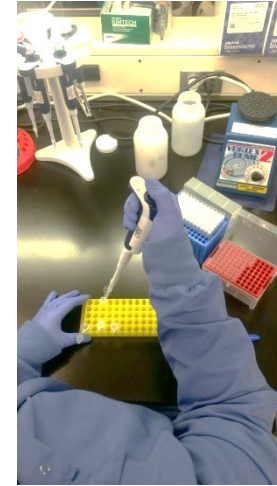
## Multi channel and light force pipettes

### Before



**Before:** “The classic-style micropipettes have a piston that must be fully depressed to which requires a lot of force. This causes hand and arm pain and ...can lead to repetitive stress injury even with proper technique. ”

### After



**After: Reduces repetition and forceful exertion**

# AA/Life Sciences and Arts (Biological Station) Adjustable stool and padded floor mats

## Before



**Before:** “The current ...is a ... backless, wooden stool with a piece of urethane packing material acting as an ad-hoc cushion. Staff are often required to stand bench side for prolonged periods... there are no anti-fatigue mats in these locations. ”

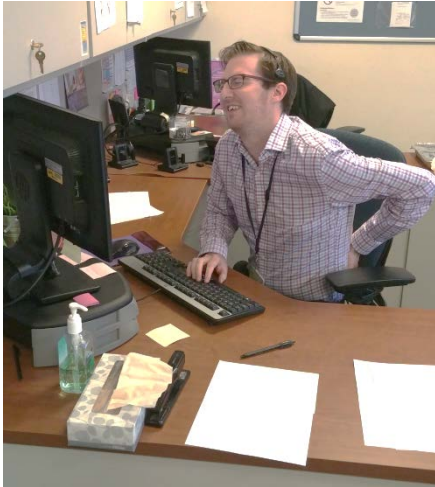
## After



**After: Reduces awkward postures and contact stress on multiple body parts**

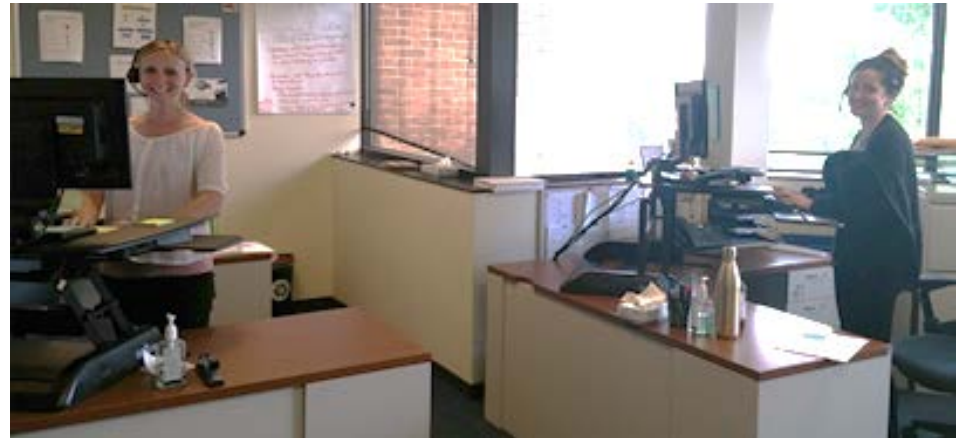
# UMHS/Anesthesiology (Burlington) Call Center Sit/stands

## Before



**Before:** “Our call center staff is sitting for 8 hours a day and typically does not have the chance to stand up and stretch at appropriate intervals.”

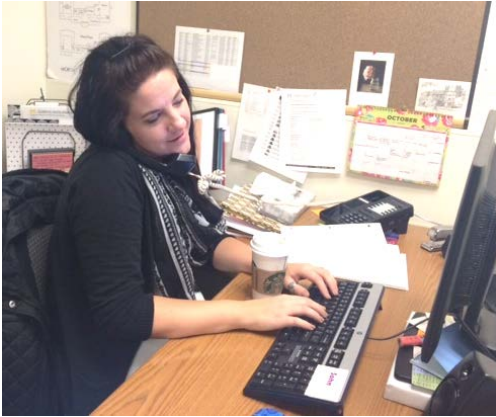
## After



**After:** Reduces sustained sitting by increasing posture changes, and maintains ability to be productive for those who cannot work while moving

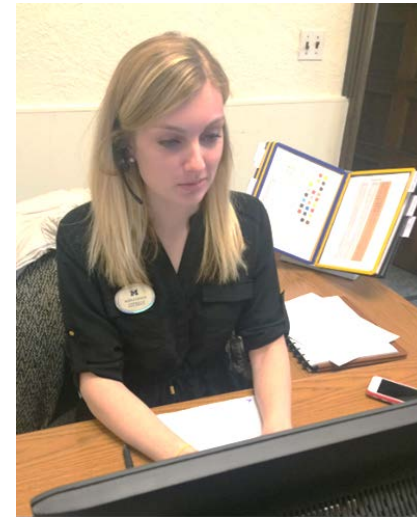
# AA/Conference and Event Services

## Before



**Before:** “As Event Planners, a large portion of our day is spent on the phone. Head sets would help to alleviate the neck pain associated with trying to hold the phone between the shoulder and the ear while inputting data into the computer”

## After



**After:** “...the headsets has allowed us to ...without cocking up our shoulder and bending our neck to hold the phone...allows staff to be more productive and comfortable.”



# AA/Construction Services Cabinet Shop Sliding Table Saw

## Before



**Before:** “On our current saw the cabinet makers are required to lift a sheet of plywood (48x96 or larger) from a rack.. ”

## After

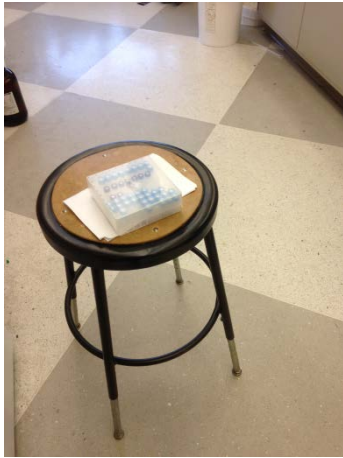


**After:** “The sliding table saw allows us to slide it from the rack to the saw”

# AA/Life Science Institute – Facilities

## Anti-fatigue mats

### Before



### After



**Before:** "...Our occupants stand for several hours a day... We've had several lab members complain that their back and legs hurt from standing so much. They do have wooden stools, but they have no cushion, these are hard on their backs as well."

**After: Mats reduce contact stress on the feet**

# UMHS/Gifts of Art Cabinet

## Before



## After



**Before:** “This packing and unpacking places extra ergonomic stress on...shoulders, knees, and back.”

**After: Eliminated Bending and lifting**

# AA/Pediatrics – Hematology/Oncology Tilting Microscope

## Before



**Before:** "...the microscope results in a hunched posture to lean in to the low height of the eye pieces on the scope. ...there is not enough height to lower a chair sufficiently to improve the posture. ”

## After

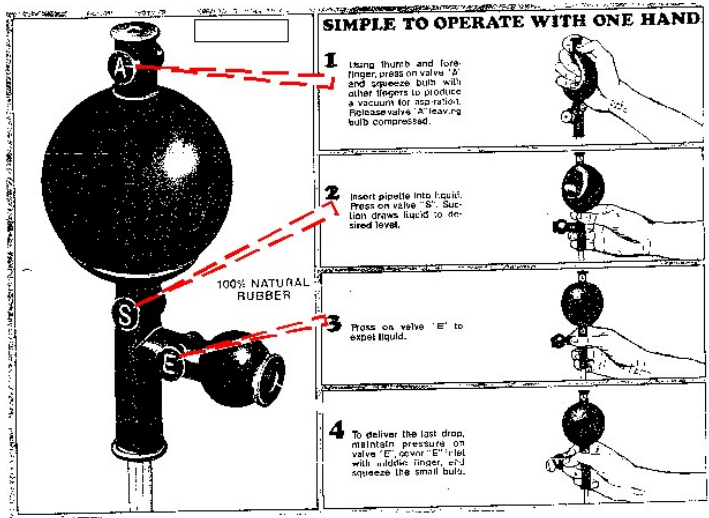


**After: Raised and angled eyepiece to reduce bending**

# AA/Life Science Biological Station Updated pipette

Before

After



**Before:** “Liquid transfers are performed at the UM Bio Station wet lab facility using pipette bulbs and Class-A volumetric pipettes. It is not uncommon for hundreds or [more] transfers to be made [in] a day. Technicians report stiffness or soreness in hands and wrists.”

**After: Reduced force and repetition**

# AA/Athletics Maintenance Shop Scissor Lift

**Before**



**Before:** “Bending over to work on heavy equipment in our shop. The ability to lift equipment up to standing height would be a big help”

**After**



**After:** Raises equipment to reduce bending and reaching

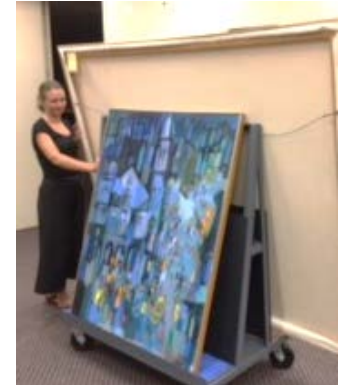
# Dearborn/Art Collections and Exhibitions

## Light weight chairs and Art cart

### Before



### After



**Before:** “The gallery does not have an appropriate cart for transporting artwork around campus that is safe for staff members and the artwork. The event chairs are heavy to stack and unstack and move around.”

**After: Reduced awkward postures with force**

# UMHS/Diagnostic Radiology Prep and Discovery

## Side bars accessory

**Before**



**Before:** “We just recently had two overhead patient ceiling lifts installed and we need a pair of side bars. The side bars are used to equally distribute the weight.”

**After**

**After: Reduces awkward postures and forceful exertion**



# AA/Plant Building and Grounds Spring Loaded Cart

## Before



**Before:** “Bags of linen are placed into the canvas carts and the employee must bend at the waist to access the bottom of the carts. Repetitive bending, lifting of laundry from the bottom of the linen carts ....”

## After



**After: Reduces awkward postures, forceful exertion, repetition**



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**Thank You!**