Laboratory Assessment Checklist

Information to collect before conducting the Ergonomics Assessment

1. Evaluation Completed by_____
2. Date_____
3. Employee Name(s) observed_____
4. Department/Lab Location _____
5. Job Title_____
6. Length of time on job: _____yrs._____ months
7. Shift_____
8. Shift Length_____
9. Hours worked per week_____
10. Break schedules_____
11. Is the employee Left or Right Handed? _____
12. Is this a multi-user workstation? _____

13. Ask if employee has discomfort when performing task (note part of body and briefly describe issue) ***Do not*** ask for medical or related information.----------
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16. Ask the employee: 'How can the design of the job tasks be improved to make the job easier to perform (or to relieve discomfort)?
_____
_____

17. Are there any planned changes to the way the job is to be performed? If Yes, describe:
_____
_____

18. List tasks performed and % of time/shift e.g. pipetting; using microscope; computer etc.

Task	**% of time per shift**	**Notes**

Continue on back of sheet as necessary

For all task assessments:

- Begin with head to toe exam - start with hands-arms etc. Flow the checklist and examine and note the cause of awkward postures, forceful and/or repetitive motions, contact stress points, etc.
- Note any employee modifications to the workstation and the reason for use
- Evaluate the physical environment – noise, lighting & glare, airflow & ventilation, floor surface, etc.
- Make a 'Birds-Eye' view sketch of the work area including worksurface shape and location of all frequently used equipment and tools.

NOTE: You should follow up on all responses with a "*" beside the box.

COMPUTER WORKSTATIONS – *Refer to Computer Workstation Checklist for more information*	**Yes**	**No**
1. Is a seat provided?	[ ]	[ ]*
2. Is the seat height adjustable within the recommendations?	[ ]	[ ]*
3. Is lumbar back support provided?	[ ]	[ ]*
4. Is a footrest provided?	[ ]	[ ]*
5.Is there ample leg room?	[ ]	[ ]*
6. Are all adjustability features easy to use?	[ ]	[ ]*
7. Is there ample room to accommodate a keyboard and a computer mouse so the employee can rest their arms at their side and forearms parallel to the floor?	[ ]	[ ]*
8. Is the keyboard and mouse close to body & on the same level?	[ ]	[ ]*
9. Is there ample room to place the monitor at a comfortable viewing distance and directly in front of user?	[ ]	[ ]*
10. Is the top of monitor is at or just below eye height (Bi/Tri focal users may need to lower/tilt the monitor further for comfort)?	[ ]	[ ]*
11. If documents are frequently used, is there a document holder?	[ ]	[ ]*
LABORATORY BENCHES		
1. If the worker stands, is anti-fatigue matting supplied and 2. Is a foot on a stool or ledge when standing in one spot available?	[ ]	[ ]*
3. Is the height of the bench appropriate for the work that is performed? (Precision work=above elbow height; light work=just below elbow height; heavy work=-6 inches below elbow height)	[ ]	[ ]*
4. Is there adequate leg room (for knees and feet if standing bench – legs for seated bench)?	[ ]	[ ]*
5. Do contact stressors exist such as bench tops with sharp edges?	[ ]	[ ]*
6. Can the employee alternate sitting and standing while performing tasks?	[ ]	[ ]*
7. Do benches have a cut-out for work activities?	[ ]	[ ]*
BIOLOGICAL SAFETY CABINETS		
1. Are arms relaxed when working in the fume hood?	[ ]	[ ]*
2. Are work supplies within easy reach in the cabinet?	[ ]	[ ]*
3. Are vials, tubes and receptacles as low profile as possible?	[ ]	[ ]*
4. Can work be viewed without tilting the head and neck?	[ ]	[ ]*
5. Can the employee alternate sitting and standing while performing tasks?	[ ]	[ ]*
LABORATORY CHAIRS		
1. Can all laboratory chairs be adjusted to accommodate all of the employees who need to use the chairs?	[ ]	[ ]*
2. Does the chair support the back while you work?	[ ]	[ ]*

3. Does the seat and seatback tilt forward?	[ ]	[ ]*
4. Are feet on the floor, a foot-ring or a footrest in neutral positions?	[ ]	[ ]*
5. If armrests are present, can they be adjusted to support arms in a neutral posture when working?	[ ]	[ ]*
MICROSCOPES	**Yes**	**No**
1. Do the shoulders appear rounded and/or is the worker hunched over?	[ ]*	[ ]
2. Is there excessive neck flexion (>25 degrees) or jutting out of neck?	[ ]*	[ ]
3. Are there contact stresses between sharp edges and the forearms?	[ ]*	[ ]
4. Is the microscope pulled out to the edge of the workbench?	[ ]	[ ]*
5. Are armrests or padding provided?	[ ]	[ ]*
6. Is there sufficient leg room?	[ ]	[ ]*
7. Does the worker rest their feet on the lab stool?	[ ]	[ ]*
8. Is there a foot rest provided?	[ ]	[ ]*
9. Has the individual been trained how to properly sit at a microscope workstation?	[ ]	[ ]*
10. Are microscope work breaks provided?	[ ]	[ ]*
PIPETTING		
1. Are manual pipettors used?	[ ]*	[ ]
2. Are electronic pipettors provided?	[ ]	[ ]*
3. Are latch-mode pipettors provided?	[ ]	[ ]*
4. Is the pipette designed to reduce contact with sharp edges?	[ ]	[ ]*
5. Has the individual been trained how to properly operate the pipette (e.g., pickup tips, eject tips, program electronic pipette, etc.).	[ ]	[ ]*
6. Does the worker pipette more than 2 hours per day?	[ ]*	[ ]
7. Are frequent breaks provided?	[ ]	[ ]*
8. Is the pipette computer-controlled to allow for computer-activated multiple dispensing instead of finger-activated dispensing?	[ ]	[ ]*
9. Are wrists and arms in a straight or neutral position when using a pipette?	[ ]	[ ]*
FINE MOTOR SKILLS		
1. Are vials with the fewest amount of threads allowable used?	[ ]	[ ]*
2. Does the worker perform dissection or micro-manipulation with forceps more than 5 hours per week?	[ ]*	[ ]
3. Does the worker use alternate fingers when using pinch grips or forceps?	[ ]	[ ]*
4. Are frequent micro breaks provided?	[ ]	[ ]*
5. Do contact stresses exist between the forearm and workbench?	[ ]*	[ ]

MICROTOME AND CRYOSTAT	Yes	No
1. Does the worker use excessive wrist flexion and extension when operating the microtome or cryostat?	[ ]*	[ ]
2.Can the microtome be operated the hand in a pistol grip position?	[ ]	[ ]*
3. Is the workstation at a height that reduces arm abduction as much as possible?	[ ]	[ ]*
3. Does the worker have access to an automatic microtome/cryostat?	[ ]	[ ]*
4. Are frequent breaks provided?	[ ]	[ ]*
5. Is a fully adjustable chair provided?	[ ]	[ ]*
Misc.	**Yes**	**No**
1. Are chemical and gas valves easy to reach and turn?	[ ]	[ ]*
2. Are supplies and tools within easy reach?	[ ]	[ ]*
3. Are bottle dispensers and bottom dispensing carboys available to dispense liquids?	[ ]	[ ]*
4. Are heavy bottles and boxes stored on low shelves?	[ ]	[ ]*
5. Does the worker try to take a break and change tasks every 20-30 minutes?	[ ]	[ ]*

NOTE: You should follow up on all responses with a "*" beside the box.

Source: NIEHS, 2004 & UCLA, 2008

Lab Equipment Resources

From the National Institute of Health or the U.S. Government website http://www.ors.od.nih.gov/Pages/home.aspx

Pipettes:

Hamilton Company

4970 Energy Way, Reno, NV 89502
Phone: 800-648-5950 800-648-5950

Web: http://www.hamiltoncompany.com/
(Recommendations: Soft grip manual pipettes)

MATRIX Technologies Corporation

22 Friars Drive, Hudson, NH 03051
Phone: 800-345-0206 800-345-0206
Web: http://www.matrixtechcorp.com/
(Recommendations: Electronic multi-channel pipettes; most are available thru the NIH Self-Service Store)

Rainin Instrument, LLC.

7500 Edgewater Drive, Box 2160
Oakland, California, USA 94621-0060
Phone: 510 564 1600 510 564 1600
Fax: 510 564 1617
Ordering Tel: 800-472-4646 800-472-4646 (toll-free)
E-mail: pipets@rainin.com
Web: http://www.rainin.com/
(Products can be found at the NIH Self-Service Stores; e.g., Rainin Latch-Mode pipette, LTS, electronic pipettes)

Microscope Accessories:

Ergo Source

P.O. Box 695 Wayzata, MN 55391
Phone: 952-404-1058 952-404-1058 Fax: 952-404-1058
Web: http://www.ergosource.com/

Bay Optical Instrument

2403 -15th Street San Francisco, CA 94114
Phone: 415-431-8711 415-431-8711 Fax: 415-252-9184
Web: http://bayoptical.com/

MSM Microscope Forearm Supports R&D Ergonomics Inc.

6 Harvey Brook Dr. Freeport, ME 04032
Phone: 207-865-6445 207-865-6445 Fax: 207-353-5308
Web: www.morencyrest.com/msm.htm

Leica Microsystems, Inc.

111 Deer Lake Road Deerfield, IL 60015
Phone: 800-248-0123 800-248-0123 Fax: 847-405-0147
Web: www.leica-microsystems.com/Stereomicroscopes

Anti-Fatigue Matting:

Tiffin Systems

450 Wall Street Tiffin, OH 44883
Phone: 800-221-1994 800-221-1994 Fax: 419-447-8313

Alimed

297 High Street Dedham, MA 02026
Phone: 800-225-2610 800-225-2610 Fax: 800-437-2966
Web: http://www.alimed.com/ (Recommendations: E.L. Task Chair; Ergo Task Chair; Obus Forme; RFM Metro for big & tall)

Tennessee Mat Company, Inc.

1414 Fourth Avenue. South Nashville, TN 37210-4123
Phone: 800-264-3030 800-264-3030 Fax: 615-255-4428
Web: http://www.wearwell.com/

Ergo Source

P.O. Box 695 Wayzata, MN 55391
Phone: 952-404-1058 952-404-1058 Fax: 952-404-1058
Web: http://www.ergosource.com/

Adjustable Tables & Edge Guards/Padding:

Alimed

297 High Street Dedham, MA 02026
Phone: 800-225-2610 800-225-2610 Fax: 800-437-2966
Web: http://www.alimed.com/ (Recommendations: E.L. Task Chair; Ergo Task Chair; Obus Forme; RFM Metro for big & tall)

Ergo Source

P.O. Box 695 Wayzata, MN 55391
Phone: 952-404-1058 952-404-1058 Fax: 952-404-1058
Web: http://www.ergosource.com/

Automatic Microtomes:

Leica Microsystems, Inc.

111 Deer Lake Road Deerfield, IL 60015
Phone: 800-248-0123 800-248-0123 Fax: 847-405-0147
Web: www.leica-microsystems.com/Stereomicroscopes

Automatic and Adjustable Cryostats:

Leica Microsystems, Inc.

111 Deer Lake Road Deerfield, IL 60015
Phone: 800-248-0123 800-248-0123 Fax: 847-405-0147
Web: www.leica-microsystems.com/Stereomicroscopes

Laboratory Stools

BIOFIT

P.O. Box 109, Waterville, OH 43566
Phone: 800-597-0246 800-597-0246

Web: http://www.biofit.com/
(Recommendations: Model #4W43-ERB-ASC-AF-XR)

UNICOR

P.O. Box 11670, Lexington, KY 40577-1670
Phone: 800-827-3168 800-827-3168
Web: http://www.unicor.gov/
(Recommendations: Legacy Arm Drafting Stool in vinyl with footring)