

A pregnant woman in a grey blazer is holding a document in an office setting. The background is blurred, showing other people working at desks. The text is overlaid on the image.

Pregnancy & Workplace Ergonomics

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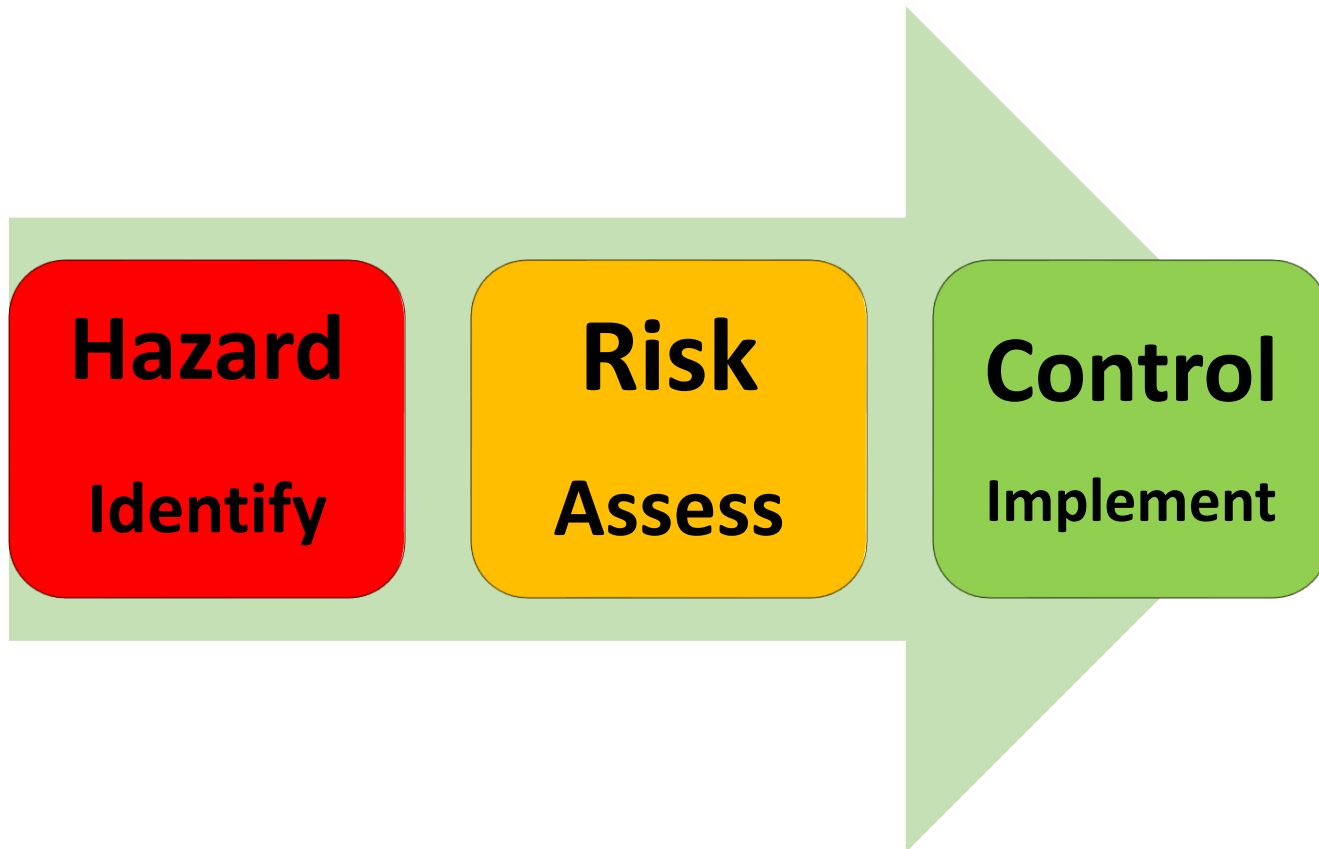
BA, BSc, CEES, CHSC, CRSP, CHSMSA, CMIOSH, FIIRSM

OUR WHY

Safest Healthiest
Easiest Pregnancy
possible as the
person continues to
Work.

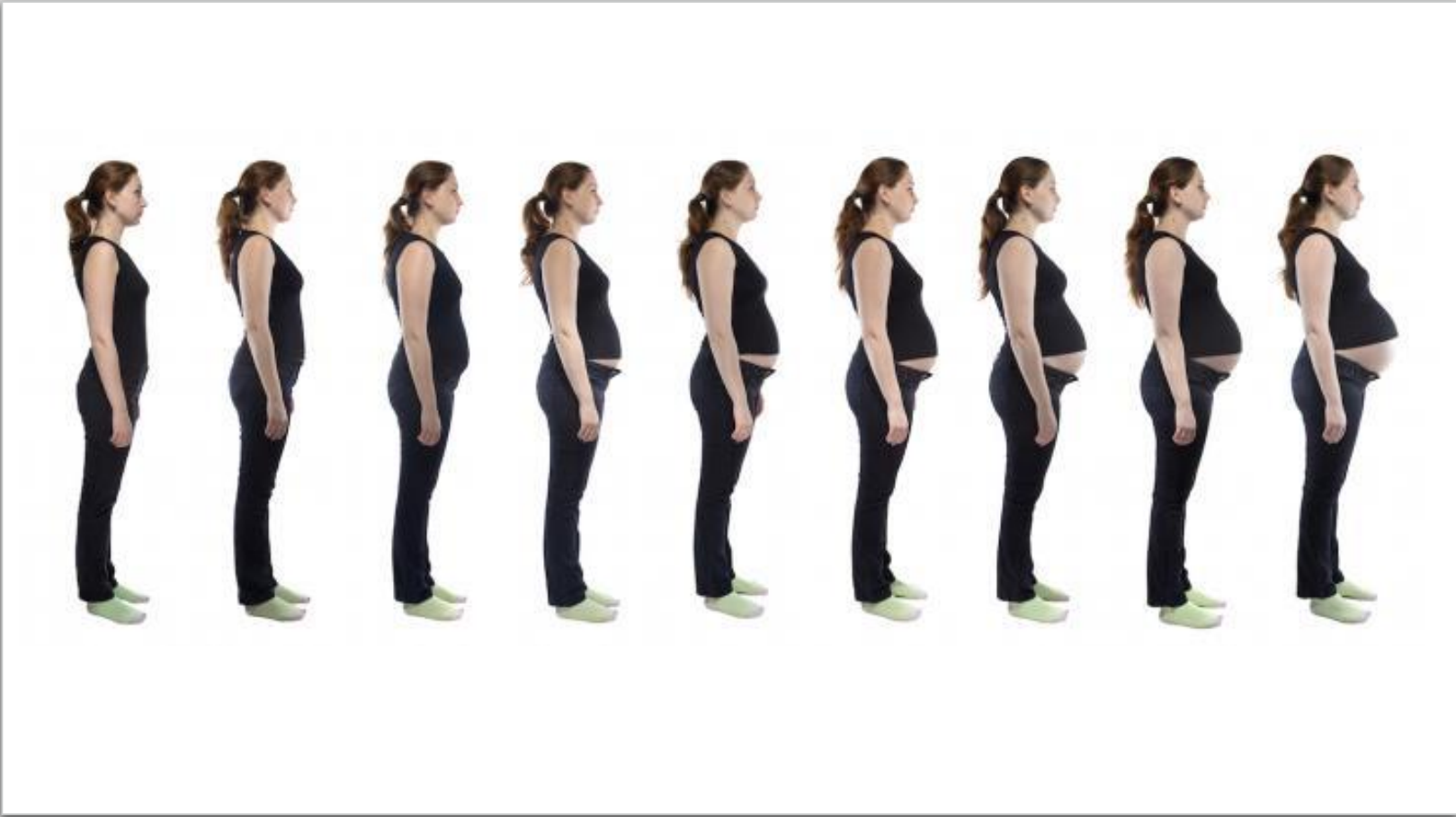


BASICS of SAFETY



Increase Risk due to Body Changes

- Hormone changes - Chemical messengers,...
- Circulatory changes,...
- Muscles & tendon changes,....
- Change in postures as the body changes shape & distribution of weight,....



Hazards & Demands of the Workplace
can affect
the Individual,
the Pregnancy
&
the Baby

ENVIRONMENTAL CHEMICALS

Stay Safe During Pregnancy

Every pregnant woman in America is exposed to at least 43 different toxic chemicals.



Many chemicals can pass from a pregnant woman to her fetus.

Prenatal exposure to certain chemicals is associated with:

- Stillbirth
- Miscarriage
- Birth defects
- Childhood cancers
- Impaired brain development in children

Toxic chemicals can have long-lasting reproductive health effects.



Reduce your exposure to environmental chemicals before and during pregnancy:

- Limit processed foods
- Use BPA-free products
- Limit foods high in animal fat
- Avoid pesticides and solvents
- Wash fresh fruits and vegetables
- Avoid fish with high mercury levels



Talk with your ob-gyn about how to avoid chemicals at home, work, and the community.

Harmful Substances





Musculoskeletal
Injuries such as
Carpal Tunnel
Syndrome.



Increase reach – affects the neck, shoulders, arms & back.



Back Injury



Increase
Risk of Falls
when
working at
height

Gestational age has been shown to be affected by:

- prolonged standing (1) &
- heavy physical exertion (2)
- but not heavy lifting (3).

1 - Simpson, J.L.. (1993). Are physical activity and employment related to preterm birth and low birth weight? *American Journal of Obstetrics and Gynecology*. 168(4): 1231-1238. Teitelman, A.M., Welch, L.S., Hellenbrand, K.G., and Bracken M.B.. (1990). Effect of maternal work activity on preterm birth and low birth weight. *American Journal of Epidemiology*. 131: 104-113.

2 - Ahlborg, G. (1995). Physical Work Load and Pregnancy Outcome. *Journal of Occupational and Environmental Medicine*. 37 (8): 941-945

3 - Ahlborg, G., Bodin, L., and Hogstedt, C.. (1990). Heavy lifting during pregnancy: a hazard to the fetus? *International Journal of Epidemiology*. 19: 90-97

Birthweight – being lower can be affected by:

- Levels of fatigue
- Heavy lifting
- Long work hours (4)
- Standing for more than 3 hrs at a time in later pregnancy (5)
- Noise levels over 85 db (6)

4– McDonald, A.D., McDonald, J.C., Armstrong, B., Cherry, N.M., Delorme, C., Nolin, A.D., and Robert, D.. (1987). *Occupation and pregnancy outcome. British Journal of Industrial Medicine. 44: 521-526.*

5 - Schneider, K-T.M., and Deckardt, R.. (1991). *The implication of upright posture on pregnancy. Journal of Perinatal Medicine. 19: 121-131.*

6- Nurminen, T.. (1995). *Female noise exposure, shift work and reproduction. Journal of Occupational and Environmental Medicine. 37 (8): 945-950.* & Hartikainen, A-L, Sorri, M., Anttonen, H., Tuimala, R., and Laara, E.. (1994). *Effect of occupational noise on the course and outcome of pregnancy. Scandinavian Journal of Work Environment and Health. 20: 444-450*

Birthweight - More physically demanding job can increase the likelihood of bigger than average (7) & is linked to labor difficulties, ruptures, higher risk of gestational diabetes.

- Linked to
 - Levels of fatigue
 - Heavy lifting
 - Long work hours (4)
 - Standing for more than 3 hrs at a time in later pregnancy (5)
 - Noise levels over 85 db (6)

Pre-Mature Birth factors that contribute are:

- High fatigue
- Shiftwork
- Rotation or changing schedules (7)
- Noise exposure (8)
- Prolonged standing (9)
- Frequent heavy lifting (more than 50x a week)(2)
- Strenuous working postures (1)

7- Nurminen, T.. (1995). Female noise exposure, shift work and reproduction. *Journal of Occupational and Environmental Medicine*. 37 (8): 945-950. & Scott, A.J., and Ladou, J.. (1990). Shiftwork: effects on sleep and health with recommendations for medical surveillance and screening. *Occupational Medicine: State of the Art Reviews*. 5 (2): 273-299

8 - Nurminen, T.. (1995). Female noise exposure, shift work and reproduction. *Journal of Occupational and Environmental Medicine*. 37 (8): 945-950 & Hartikainen, A-L, Sorri, M., Anttonen, H., Tuimala, R., and Laara, E.. (1994). Effect of occupational noise on the course and outcome of pregnancy. *Scandinavian Journal of Work Environment and Health*. 20: 444-450.

9 - Teitelman, A.M., Welch, L.S., Hellenbrand, K.G., and Bracken M.B.. (1990). Effect of maternal work activity on preterm birth and low birth weight. *American Journal of Epidemiology*. 131: 104-113.

Pregnancy Loss was found to be

- Shiftwork*
- Piecework
- Posture
- Heavy lifting*
- Physical Effort*

Occupational that may be at higher risk include metal & electrical workers,... sales & service occupations.

Goulet, L., Theriault, G., (1987). Association between spontaneous abortion and ergonomic factors: A literature review of the epidemiologic evidence. Scandinavian Journal of Work Environment and Health. 13: 399-403

Hartikainen, A-L, Sorri, M., Anttonen, H., Tuimala, R., and Laara, E.. (1994). Effect of occupational noise on the course and outcome of pregnancy. Scandinavian Journal of Work Environment and Health. 20: 444-450

McDonald, A.D., McDonald, J.C., Armstrong, B., Cherry, N.M., Delorme, C., Nolin, A.D., and Robert, D.. (1987). Occupation and pregnancy outcome. British Journal of Industrial Medicine. 44: 521-526.

Nurminen, T.. (1995). Female noise exposure, shift work and reproduction. Journal of Occupational and Environmental Medicine. 37 (8): 945-950.

Stillbirth -Increased risk in leather workers & other manufacturing industries, health care, saleswomen, food & beverage service workers

Associated with:

- Heavy lifting
- Physical effort
- Long working hours.

Assess the Situation / Hazard ID

- Shift work – rotation or changing schedules, long working hours
- If physically strenuous
 - prolonged standing for more than 3 hrs per day, physical effort
 - Repetitive lifting more than 10 kg or 22 lb
 - High fatigue
- Assembly line jobs – repetitive work
- Working on industrial machines – noise & vibration
- Working in cold / hot environments

Fit for Work Program

Safety Sensitive / Physically Demanding

Impairment

Medical conditions

Physical Fitness

Illness

Drug & Alcohol

Stress

Fatigue Management



Pregnancy Accommodation Outline of the Law

An employer's obligation to provide accommodations to pregnant women springs from five main legal sources:

- [Americans with Disabilities Act](#)
- [Pregnancy Discrimination Act](#)
- [Family and Medical Leave Act](#)
- [State pregnancy accommodation laws](#)
- [Local pregnancy accommodation laws](#)

The outline below presents how each governs an employer's obligation to provide pregnancy accommodations. More information can be found in the training materials for lawyers on the [Pregnant@Work](http://www.pregnantatwork.org) website (visit www.pregnantatwork.org) and in the legal treatise FAMILY RESPONSIBILITIES DISCRIMINATION by Calvert, Williams, & Phelan (Bloomberg BNA).

I. Federal Statutes

A. Americans with Disabilities Act, 42 U.S.C. §12101 *et seq.*, Regulations, 29 C.F.R. Part 1630

1. Applies to employers of 15 or more employees.
2. Prohibits employment discrimination because of an employee's actual or perceived disability; a failure to accommodate an employee's disability is discrimination under the statute. 42 U.S.C. §12112(b)(5)(A).
3. A disability is a physical or mental impairment that substantially limits a major life activity. 42 U.S.C. §12102(1).
 - a. The ADA was substantially amended in 2008 to broaden the interpretation of this definition of disability. Pub. L. No. 101-325, 122 Stat. 3553 (2008) ("ADAAA"). The amendment was intended to broaden the coverage of the statute. As a result, many pregnancy-related conditions that were not covered by the ADA prior to the amendments are now covered and must be accommodated under the law. See, e.g., *Almond v. Telford*, 2013 U.S. Dist. LEXIS 452070 (E.D.

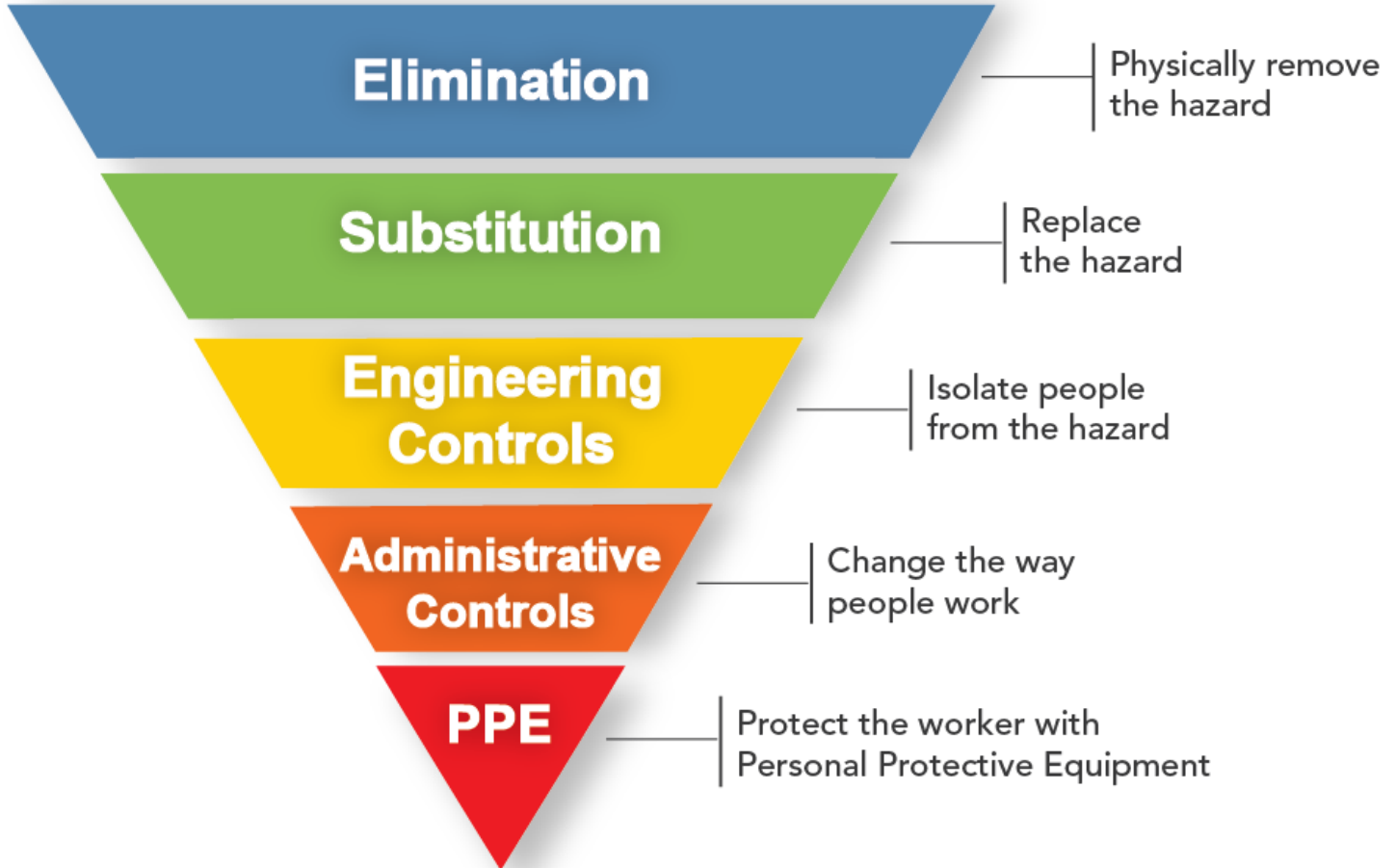


Hierarchy of Controls

Most effective



Least effective

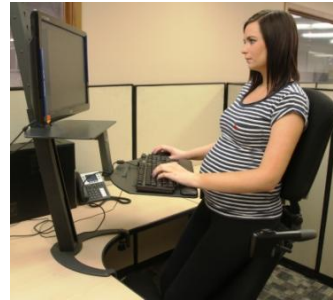
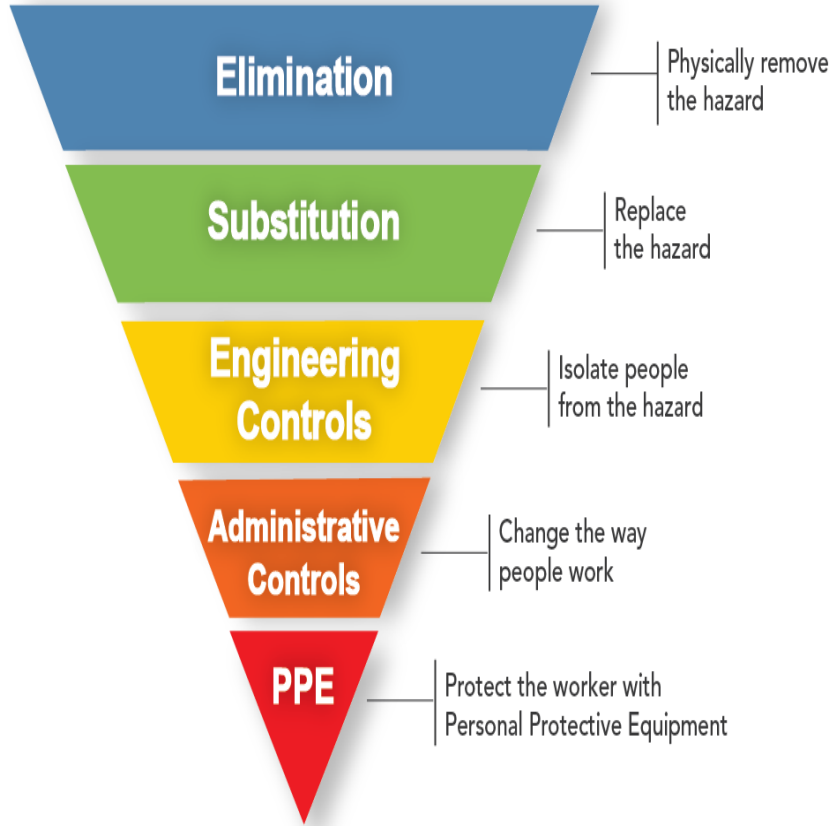


Hierarchy of Controls

Most effective



Least effective



Safest easiest Pregnancy possible as you continue to Work

- Work Environment Considerations
- Scheduling & Work Hours
- Communication
- Clothing & Shoes
- Food & Drink

Emphasize Communication

- Talk to your Doctor
- Talk to your Supervisor
- Talk to your Co-workers



A pregnant woman in a white t-shirt is shown from the side, holding her belly. A doctor in a white lab coat with a blue stethoscope is standing next to her, with one hand resting on her abdomen. The background is a light blue wall.

Talk with the Doctor

The individual's doctor is their advocate & partner throughout a pregnancy, so open communication discussing any & all issues

If the doctor recommends light duty, early leave or other work restrictions, this needs to be communicated to the workplace.



Search Mayo Clinic

- Request an Appointment
- Find a Doctor
- Find a Job
- Give Now

Log in to Patient Account

English



- PATIENT CARE & HEALTH INFO
- DEPARTMENTS & CENTERS
- RESEARCH
- EDUCATION
- FOR MEDICAL PROFESSIONALS
- PRODUCTS & SERVICES
- GIVING TO MAYO CLINIC

Appointments at Mayo Clinic

Mayo Clinic offers appointments in Arizona, Florida and Minnesota and at Mayo Clinic Health System locations.

Request Appointment

Healthy Lifestyle

Print

Pregnancy week by week

- Basics
- In-Depth**
- Expert Answers
- Multimedia
- Resources
- News From Mayo Clinic
- What's New

Products and services

The Mayo Clinic Diet

What is your weight-loss goal?

5-10 lbs »

Working during pregnancy: Do's and don'ts

Working during pregnancy isn't always easy. Know how to battle symptoms and stay healthy while getting the job done.

By [Mayo Clinic Staff](#)

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ASK YOUR DOCTOR

Talk with their Supervisor

Need to let supervisors know, especially if they have a demanding job.

If they think that schedules or task may need to be accommodated, then earlier the conversation the better.



PREGNANCY + MY JOB: A Roadmap

See our accompanying guide for more detailed information.

Your partner may also qualify for time off and pay.

1

You're Pregnant!

Learn about your rights at legalaidatwork.org. You may have the right to paid sick days and time off for prenatal care.



2

Changes at Work

Talk to your doctor about your job. If you need changes at work, bring a doctor's note to your employer.



4

Pay During Leave

When your leave begins, apply for State Disability Insurance. After you recover, apply for 6 more weeks of Paid Family Leave. Contact EDD (edd.ca.gov) to apply for both.



Leave from Work

Tell your employer at least 30 days before you plan to start your leave.

Disability leave can begin 4 weeks before your due date and lasts for 6 weeks after delivery (8 weeks for a c-section). Ask your employer if you qualify for 12 more weeks to bond.

3

5

Lactation

Before your leave, ask your employer about your right to break time and a private space to pump at work.



Talk with their Co-Workers

Need to notify co-workers, as they can be a help through out the pregnancy – understanding, support & activity.



Talk with their Partner

Important to involve partners so if there is going to be changes, they are discussed together & a strategy is decided & acted on.

Decisions or changes at work can affect the family unit – overall household income, leave days, schedules,... moods.




Accommodation or Modifications

- Federal Pregnancy Discrimination Act of 1978 – a company must treat pregnant employees as same as nonpregnant employees who are similar in their ability or inability to work.
- Americans with Disabilities Act – if develop a pregnancy related health condition
- “Reasonable Accommodations” within 27 states & Washington D.C.
- <https://www.pregnantatwork.org/wp-content/uploads/FINAL-Pregnancy-Accommodation-Laws-Outline.pdf>

Modification of the Task or Work Environment







Modification of the Task or Work Environment















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Scheduling & Work Hours



- Schedule adjustment – modification or work
 - Shorter from longer shifts
 - i.e. Manufacturing or Nursing – 12 hours shifts to 8 hour shifts
- Try to spread out your shifts
 - 3 12s in a row – to 1 – 12 and day off in-between so not back to back

Scheduling & Work Hours



- Day vs Night Shifts
 - No right or wrong answer to this, but if you can let them pick to align best with their natural sleeping patterns so they can truly rest when on off time.
- Light Duty
 - Doing lighter duty tasks rather heaving lifting or other strenuous work – later in the pregnancy
 - Go part time or start a leave early
 - Some people will choose to cut down on scheduled shifts or work hours. Of course part time work means less money and may affect insurance and benefits, and even reduce timewith baby after birth



Clothing





Shoes

- Need to be supportive – good arch supports, well cushioned design,
- Help stave off foot, leg & back pain
- Slip resistant soles
- Moisture-wicking fabrics or venting for sweat



Invest in Compression Socks

- Encourage good circulation, reduce swelling & help fight foot & leg pain
- Maternity compression stockings – if thighs are swelling



Reminders about Food & Drink

- Drink plenty of Water
- Bathroom
- Meals & snacks
- Anti-nausea packs – Zofran, bland crackers,....

Summary of Ergonomic Modifications

- Work & break schedules
- Modification of work tasks – less physical, restrict lifting to 25 lbs, vary tasks to avoid static postures or repetitive activities
- Adjust the work environment – adjustable heights of work surfaces & chairs, foot rests, sit/stand chairs,... reduce amount of work performed at heights
- Supply information & support on things they can do – shoes, support devices, hydration,....

Pregnant workers require extra attention with ergonomic hazards,...

- Work with supervisor, safety, health professional, HR & physician to assess the hazards.
- Appropriate accommodation to prevent injuries, enhance comfort & better handle work combined with physical changes related to pregnancy.
- Fit for Work Program – Medical conditions

Questions? More Information?



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