The Pregnant Worker: How Much is Too Much? Assessing Safe Activity Levels

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Physicians should be able to advise pregnant women about safe amounts of physical activity in the workplace. A computerized literature search was used to review reproductive risks of physical activity, proper clinical evaluation and recommendations of the pregnant worker regarding physical activity, and current State of Hawaii disability legislation pertinent to pregnant workers. This article highlights the importance of making accurate clinical assessments regarding the continuation of work for the healthy pregnant worker and also provides physicians with an approach to assessing physical exposure risks of pregnant workers.

Introduction

The demographics of the work force have dramatically changed in recent decades. Today, with equal employment opportunities, women now constitute nearly 50% of all workers and a majority of working women are within their reproductive years.[1] Women are increasingly employed in occupations requiring strenuous physical activity including prolonged standing, lifting heavy objects, and climbing stairs and ladders. These factors in some instances can pose risks to the pregnant worker and developing fetus.

In Hawaii, a physician's certification that a worker is disabled secondary to her pregnancy can result in significant financial burden to the employer and the employee. The mandatory temporary disability insurance law (TDI) in Hawaii requires employers to cover 58% of a pregnant worker's salary for up to 26 weeks if certified by a *licensed practitioner*.[2] This translates into significant loss to the employer (58% of a paid workday) or a 42% wage loss by the patient if sick leave is not applied. Therefore, in a era of both health care and industrial reform, physicians must employ sound medical knowledge when assessing the employment status of the pregnant worker.

Physicians often give advice regarding work and physical activity during pregnancy, and at times, this advice is based on social and cultural beliefs rather than on scientific merit. It is important that physicians who evaluate pregnant workers be aware of the current available data and guidelines that help define safe levels of physical activity during pregnancy. Not removing a pregnant worker from a known hazard can result in both maternal and fetal harm. Removing a pregnant worker from work when no significant hazard exists also is quite undesirable as it may negatively affect workers' careers, increases the cost of business, and tarnishes the medical professions' reputation.

This article reviews legislation in Hawaii which mandates employer compensation of the pregnant worker, reviews recent studies that identify potential reproductive risks of physical exertion during pregnancy, and provides physicians with an approach to assessing and ensuring safe activity levels of the pregnant worker.

Compensation of the Pregnant Worker

In many states pregnancy is not considered a disability that qualifies for paid pregnancy leave from employment. In these states, the issue of paid leave for pregnancy is usually decided by individual employment policies. Such policies often utilize a worker's sick leave, and compensation may be full or a reduced percentage of the worker's average weekly pay. The duration of benefits tends to vary and generally does not exceed six weeks. The Family and Medical Leave Act of 1993[3] is a federal law which mandates that employers grant up to 90 days of unpaid leave to pregnant workers. The Family and Medical Leave Act also provides job security, safeguarding a worker's previous job on return to employment within 90 days.

In Hawaii as well as other states, Temporary Disability Insurance Law (TDI) is mandatory and applies to pregnant workers. In Hawaii, the current premium cost is 80 cents per $100 of wages which is usually shared by the worker and employer. Worker contribution cannot exceed one-half the premium cost and not more than 0.5% of weekly taxable wages. TDI benefits begin on the eighth day of disability and can extend a maximum of 26 weeks during a benefit year. The injury or illness causing disability cannot be work related and must prevent job performance. A worker must be employed before the date of illness or injury and the disability must be certified by a licensed physician, surgeon, dentist, chiropractor, osteopath, naturopath, or an accredited practitioner of a faith-healing group. Current reimbursement benefits of TDI include up to 58% of average weekly wages but not more than the maximum weekly benefit annually set by the Disability Compensation Division (in the 1994 maximum benefit was $338).[2]

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Physical Exertion and Pregnancy

The effects of physical exertion have been studied regarding the reproductive health of pregnant women. Most studies have used preterm birth and low birth weight as endpoints which are common clinical entities in themselves. Unfortunately, many study results are difficult to interpret and apply clinically. Further, when statistically significant associations have been determined, clinical significance is often lacking; for example, What is the clinical significance of preterm birth at 37 weeks of gestation? Results among studies are often conflicting and some actually have shown decreased incidence of adverse pregnancy outcomes among working women. Confounding factors must be considered including recall bias and the socioeconomic differences between working and unemployed women.[4-5]

In a recent case-control study conducted among U.S. nurses with 1,470 cases (210 preterm births defined as <37 weeks of gestation, and 1,260 births delivered at >37 weeks), prolonged standing >4 hours per shift was associated with preterm birth.[6] Other studies also have demonstrated an association of preterm birth, low birth weight, or spontaneous abortion with prolonged standing, lifting, and physical exertion.[7-12] However, not all studies demonstrated these increased risks.[13-14] Potential mechanisms to the above outcomes include decreased venous return with standing, and increased abdominal pressure with lifting and heavy exertion, which may lead to compromise of fetal circulation. While review of the collective data reveals a trend toward these risks, clinical significance remains uncertain.

AMA Guidelines of Physical Activity during Pregnancy[15]

Job Function	Activity allowed: Week of Gestation
Secretarial and light clerical	40
Professional and managerial	40
Sitting and light tasks	
Prolonged (>4hr)	40
Intermittent	40
Standing	
Prolonged (>4hr)	24
Intermittent	
(>30 min/hr)	32
(<30 min/hr)	40
Stooping and bending below knee level	
Repetitive	
(>10 times/hr)	20
Intermittent	
(<10>2 times/hr)	28
(<2 times/hr)	40
Climbing vertical ladders and poles	
Repetitive	
(>4 times/8-hr shift)	20
Intermittent	
(<4 times/8-hr shift)	28
Stairs	
Repetitive	
(>4 times/8-hr shift)	28
Intermittent	
(<4 times/8-hr shift)	40
Lifting	
Repetitive	
>23 kg	20
<23>11 kg	24
<11 kg	40
Intermittent	
>23 kg	30
<14>11 kg	40
<11 kg	40

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Realizing the difficulties of drawing conclusive results from past studies, the American Medical Association, through the Council of Scientific Affairs, has published guidelines for continuation of work during pregnancy.[15] These guidelines assume that the mother is healthy and the pregnancy otherwise uncomplicated. Physicians who counsel pregnant employees should be familiar with these guidelines and keep them in mind when considering work restrictions.

Physicians must accurately define the level of physical exertion encountered at the workplace of each pregnant patient. The level of exertion can be quantified by duration of standing, weight and frequency of lifting, degree of bending, and amount of climbing stairs and ladders. If the employee is unable to provide an accurate description of her activities at work, information may be obtained by speaking directly with the employer and reviewing written job descriptions. In some cases, it may be most appropriate to have an experienced ergonomist evaluate the work situation and provide an accurate and detailed report.

The evaluation of the pregnant worker must be individualized. Physicians should intervene when a pregnant worker's level of activity is excessive. Many workplace modifications usually can be made, especially in the latter stages of pregnancy to enable the pregnant worker to safely continue working. This requires direct communication between physician, employer, and the pregnant worker. Modification can include specialized safety training, lighter duty, reduction in the number of hours worked, and allowing more frequent rest periods. Temporary job reassignment might be an additional option for the pregnant worker.

Summary

Physicians should be aware that continuing work during pregnancy is generally safe in otherwise healthy women. Unnecessary removal of a pregnant worker from employment can result in significant financial loss to the employer, reinforces past misconceptions about the safety of work during pregnancy, and tarnishes the reputation of the medical profession. Levels of physical exertion can be readily determined and also can be modified when necessary to ensure maternal and fetal safety. Frequent rest periods and modified duty in the latter stages of pregnancy should be advocated. The needs and safety of the pregnant worker must remain the foremost concern of both employers and physicians

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