



Maternal adaptations to pregnancy: Musculoskeletal changes and pain

AUTHOR: [Bonnie L Bermas, MD](#)

SECTION EDITOR: [Charles J Lockwood, MD, MHCM](#)

DEPUTY EDITOR: [Alana Chakrabarti, MD](#)

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INTRODUCTION

Pregnancy is a time of many anatomic and physiological changes. The gravida must nurture and host the fetus, but also adapt to a new body habitus and alterations in the hormonal milieu. Not surprisingly, these changes impact the musculoskeletal system, which can develop a variety of problems, such as generalized arthralgias, back pain, separation of the pelvic bones, transient osteoporosis, and tendonitis.

Pain related to the musculoskeletal system in pregnant patients will be reviewed here. Neurologic disorders, myopathies, and inflammatory muscle diseases are discussed separately. (See "[Neurologic disorders complicating pregnancy](#)".)

NORMAL PREGNANCY CHANGES

During pregnancy, patients gain 25 to 35 pounds, on average, have a shift in their point of gravity, and undergo multiple hormonal changes and biomechanical alterations that strain the axial skeleton and pelvis.

The weight gain and hormonal changes of pregnancy contribute to the following musculoskeletal alterations:

- Force across some joints is increased up to twofold [1].

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