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Maternal adaptations to pregnancy: Cardiovascular and hemodynamic changes

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INTRODUCTION

Many physiologic changes occur during pregnancy to accommodate maternal and fetal needs as pregnancy progresses. Most of these changes begin soon after conception and continue until late gestation. Pregnancy-related hemodynamic changes include increased cardiac output, expanded blood volume, reduced systemic vascular resistance (SVR) and blood pressure (BP), and a small increase in heart rate. Knowledge of these cardiovascular adaptations is required to correctly interpret hemodynamic and cardiovascular tests in pregnant and postpartum patients, predict the effects of pregnancy on the patient with underlying heart disease, and understand how the fetus may be affected by maternal cardiac disorders.

The cardiovascular changes associated with normal pregnancy will be discussed here. The management of specific cardiovascular disorders in pregnancy is reviewed separately. For example:

- (See "Acquired heart disease and pregnancy".)
- (See "Pregnancy in women with congenital heart disease: General principles" and "Pregnancy in women with congenital heart disease: Specific lesions".)
- (See "Pregnancy and valve disease".)

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