

Cardiac arrest in a pregnant woman

When cardiac arrest occurs in a pregnant woman, standard resuscitation guidelines apply. In the UK this would be according to the [Resuscitation Council 2006 guidelines](#).

Special conditions apply to the resuscitation of pregnant patients. The cause of the cardiopulmonary arrest and the techniques of resuscitation may differ. In all cases it is imperative that staff with the appropriate experience are present at the resuscitation attempt.

Early involvement of an obstetrician and neonatologist is crucial when dealing with cardiopulmonary arrest in the pregnant patient.

Particular attention should be paid to minimizing vascular compression caused by the gravid uterus and to early advanced airway intervention.

Peri-mortem Caesarean section may have to be undertaken early in the resuscitation attempt and equipment should be immediately available.

Placing the patient supine on a firm, flat surface provides optimal resuscitation conditions for nonpregnant patients but exacerbates aortocaval compression in pregnant patients. Left lateral tilt or manual left uterine displacement may relieve aortocaval compression but may interfere with effective external chest compression and resuscitative efforts. Cardiac output is approximately 30% of normal during effective CPR and depends on the efficacy of external chest compressions.

Caesarean section may facilitate maternal resuscitation by relieving aortocaval compression, increasing venous return and increasing cardiac output. Performance of perimortem Caesarean section delivery within 4 to 5 minutes increases the likelihood of maternal and neonatal survival. When standard resuscitative efforts fail to restore maternal circulation, deciding to perform and immediate Caesarean section may be a difficult decision.

Factors to consider include:

- The cause of maternal cardiac arrest
- The time interval since maternal cardiac arrest
- The probability of maternal survival
- The gestational age
- The probability of neonatal survival
- The availability of personnel to care for the mother and neonate

References:

[i] [Resuscitation Council \(UK\) 2006](#)

[ii] Chestnut DH. [Obstetric Anesthesia Principles and Practice 3rd Edition](#) 2004; 943-949

[iii] Managing Obstetric Emergencies and Trauma - [The MOET Course Manual \(2nd edition\)](#) Charles Cox, Kate Grady and Charlotte Howell

