

Management of suspected large for gestational age fetus in non-diabetic mothers

Key Points

- Identification of the LGA fetus must be confirmed on USS.
- Understand the role of GTT screening once an LGA fetus has been confirmed.
- Fetal weight of approx. >4000g (9lb) or >90th centile EFW on USS may be at increased risk of labour complications, such as LSCS, shoulder dystocia, and 3rd/4th degree tears.
- Currently there is not enough evidence to recommend one method of delivery over another.
- Women should be provided with information about the different modes of birth so they can make an informed decision.

Version: 2.0

Date Issued: 23/06/2026

Review Date: 01/06/2029

Key words: LGA, large for gestational age, large, macrosomia

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Abbreviations

BMI	Body Mass Index
EDD	Estimated Date of Delivery
EFW	Estimated Fetal Weight
GDM	Gestational Diabetes Mellitus
HIE	Hypoxic Ischaemic Encephalopathy
HSIB	Health Safety Investigation Branch
IOL	Induction of Labour
LGA	Large for Gestational Age
NICE	National Institute for Health and Care Excellence
OGTT	Oral Glucose Tolerance Test
PPH	Postpartum Haemorrhage
RCOG	Royal College of Obstetricians and Gynaecologists
SFH	Symphysis Fundal Height
USS	Ultrasound Scan

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1.0 Background

The number of large babies is on the increase, mainly due to the increases in maternal height, BMI, gestational weight gain, diabetes, reduced cigarette smoking, and changes in socio-demographic factors.

In a recent multicentre UK trial, around 60% of babies that were predicted to be LGA antenatally, were **not** LGA at birth (Gardosi et al 2025).

There is some evidence of both benefits and harms for induction of labour and for expectant management in women without diabetes with suspected fetal macrosomia, but there is uncertainty around this evidence.

The term large-for-gestational-age (LGA) or macrosomia is a term used for a fetus or newborn with an estimated or actual weight > 4000g at delivery irrespective of gestational age as maternal complications and perinatal morbidity and mortality begin to rise from that birth weight.

The risks associated with LGA babies include shoulder dystocia which can result in brachial plexus injury (2.3-16%), fractures, hypoxic ischaemic encephalopathy (HIE) and stillbirth. In addition, larger babies carry an increased risk of developing type 2 diabetes later in life, have an increased risk of breast cancer pre-menopausal and an increased risk of becoming overweight.

For the mother, complications include prolonged labour, third- and fourth-degree perineal tears (3.8%) and post-partum haemorrhage (11%)^{1,4,5}.

The Big Baby Trial (Gardosi et al 2025) found that offering induction from 38 weeks to women with predicted LGA fetuses (compared to delivery after 39 weeks) may slightly reduce the risk of shoulder dystocia. There is insufficient evidence to support delivery below 37 weeks and this should not be routinely offered for suspected LGA alone.

The aim of this guideline is to;

- Help staff provide women with information about the different modes of birth so they can make an informed decision, as there is not enough evidence to recommend one method over another.
- Discuss monitoring and timing of delivery at an appropriate birthweight without increasing the risks associated with the interventions.

2.0 Definition of suspected LGA

There is no standard definition of LGA. NICE guideline considers LGA baby as an Estimated Fetal Weight (EFW) >90th centile on the customised growth chart or EFW >4000g on an ultrasound¹. This is expected to affect 10% of all pregnancies¹.

The evidence is less clear for the role of IOL in women whose babies are >90th centile but not >4000g. IOL can be discussed with these women, but the limitations of the evidence should be explained.

3.0 Identification and management of LGA

3.1 When to request USS for suspected LGA or accelerative growth

If the SFH measurements are growing steadily, in a normal growth trajectory, above the 90th centile, with no other concerns, book an ultrasound after 36 weeks. An ultrasound is not required before 36 weeks if there are no other concerns.

If one SFH measurement is above the 90th centile and there has not been a scan in the last 2 weeks, arrange an ultrasound after 36 weeks. An ultrasound is not required before 36 weeks if there are no other concerns.

If the serial fundal height plots demonstrate accelerated growth, refer for ultrasound scan.

3.2 Management of confirmed LGA (EFW on USS >90th centile)

If the EFW is above the 90th centile on the GROW chart, check if the mother has had a glucose tolerance test (OGTT) in the last 4 weeks. If not, arrange one within a week (if under 36 weeks pregnant). If she has already had a normal OGTT in the last 4 weeks, or is over 36 weeks pregnant, arrange a HbA1c and random blood glucose (lab test not capillary sample).

If GDM is diagnosed, refer to Diabetes ANC for further management (see FHFT guideline - Diabetes in pregnancy).

If the woman is not diabetic, refer her to the antenatal clinic by 37 weeks, with a recent scan if the last one was more than 4 weeks ago.

If the scan shows EFW is above the 90th centile, the woman should be given personalised counselling about her options, including being induced or waiting for labour to start naturally. See guidance below for this counselling.

3.3 Antenatal counselling for confirmed LGA

Women should be informed about the significant limitations of predicting EFW with USS. 60% of babies born who are suspected to be LGA are normal sized at birth (Gardosi et al 2025).

All counselling needs to be personalised, considering the individual's preferences and circumstances.

Counselling regarding IOL from 38 Weeks vs Expectant Management information should include discussion about the following:

- IOL from 38 weeks may slightly reduce the risk of shoulder dystocia compared to later delivery at 39 weeks and beyond.
- There is no significant difference in caesarean section rates between induction and expectant management groups.
- Consideration should be given to the slightly increased chance of baby being admitted to the Neonatal Unit (NNU) compared to continuing pregnancy to 39 weeks

- Consideration should be given to the higher incidence of special educational needs (SEN) in babies born at 38 weeks compared to continuing pregnancy to 39 weeks and beyond.
- Women should be counselled about the impact of induction of labour on maternal experience and increased rates of medical intervention (examinations, ARM, need for oxytocin and continuous monitoring).
- If the mother wishes to have a Caesarean section, she should be fully counselled about the risks and benefits (see FHFT guideline Caesarean section including Enhanced Recovery and NICE IOL guideline). There should also be an agreed and documented plan of management should spontaneous labour occur prior to the agreed date of the Caesarean section.
- If the mother does not wish to accept induction/delivery from 38 weeks after being fully counselled regarding the risks and benefits, a plan for monitoring and timing of delivery should be discussed and documented.

4.0 Intrapartum Care

All mothers with estimated fetal weight > 90th centile by USS should be advised to labour in the obstetric-led unit. They should be counselled again about the risks of shoulder dystocia and the manoeuvres adopted to facilitate birth should it be required (see FHFT guideline Shoulder Dystocia).

LGA is not an indication for continuous fetal monitoring.

Active management of the third stage should also be offered to mothers with routine use of:

- Syntometrine (unless contraindicated)
- Deferred cord clamping
- Controlled cord traction
- Oxytocin infusion

Refer to Neonatal Hyperglycaemia guideline for postnatal care of neonate.

5.0 Auditable standards

- Criteria for identification of suspected LGA
- Documentation of counselling about the risks of shoulder dystocia to mother and baby
- Documentation of management plan discussed including benefits, risks and alternative options in suspected LGA
- Escalation to and inclusion of neonatal team when LGA is suspected in labour

6.0 References

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Full version control record

Version:	2
Guidelines Lead(s):	Rebecca Edwards (Consultant Midwife) Nicola Rose-Stone (Consultant Midwife)
Lead Director / Chief of Service:	Balvinder Sagoo
Library check completed:	22/10/2025
Ratified at:	Cross Site Obstetric Clinical Governance meeting, 16 th June 2026
Date Issued:	23/06/2026
Review Date:	01/062029
Pharmaceutical dosing advice and formulary compliance checked by:	N/A
Key words:	LGA, large for gestational age, large, macrosomia

This guideline has been registered with the Trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt, contact a senior colleague or expert. Caution is advised when using guidelines after the review date.

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Version Control Sheet

Version	Date	Guideline Lead(s)	Status	Comment
1.0	Jan 2023	Nana Seiwaa Opare, ST6 Balvinder Sagoo, O&G Consultant	Final	First cross site version
1.1	April 2025	Balvinder Sagoo, O&G Consultant	Interim	Amendment on page 3: removal of sentence as not aligned with current practice. Signed as Chair's action by CoS B. Sagoo (add date)
2.0	June 2026	Rebecca Edwards (Consultant Midwife) Nicola Rose-Stone (Consultant Midwife)	Final	Professional midwifery advocate: Nicola Rose Stone Approved at Cross Site Clinical Governance Meeting, 16 th June 2026

Related Documents

Document Type	Document Name
Guideline	Identification and management of fetal growth restriction
Guideline	Diabetes in pregnancy

Guideline	Caesarean section including Enhanced Recovery
Guideline	Shoulder dystocia
Guideline	Use of the pool during labour and birth