Maternity Education Program

Shoulder Dystocia

Participant Resource Kit

CSDS

Clinical Skills Development Service

Queensland Government

Maternity Education Program

The resources developed for Maternity Education Program (MEP) are designed for use in any Queensland Health facility that care for patients/ women who are pregnant/ birthing or postnatal.

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Shoulder Dystocia – Participant Resource Kit

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Who is this resource kit for?

This resource kit provides healthcare workers with knowledge and skills on assessing and managing a shoulder dystocia.

Target audience

Midwifery and medical staff providing maternity care

Duration

45 mins – including simulation and debrief (allow 15 minutes for setup)

Group size

Suited to small groups (6 – 8)

Learning objectives

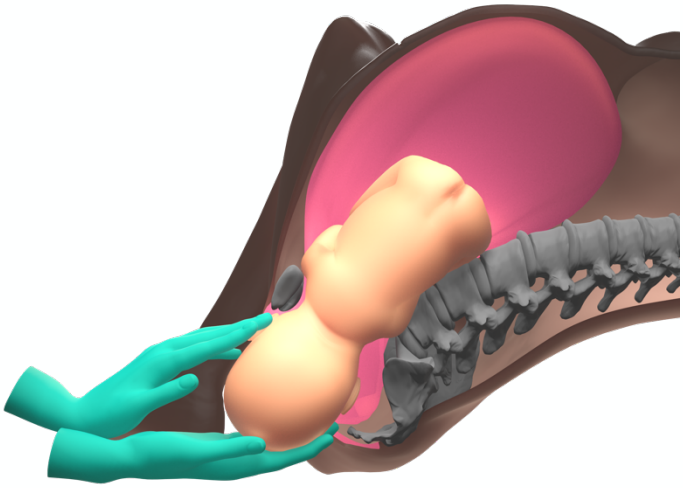
By the end of the session the learner should be able to:

- Identify shoulder dystocia.
- Employ manoeuvres to resolve shoulder dystocia.
- Demonstrate good use of resources and team members.
- Display clear and effective communication skills.

Supporting documents

1. Interactive 3D animation tool
2. PowerPoint (Obcast)
3. List of further readings
4. Shoulder dystocia flow diagram

Overview



Shoulder dystocia is best defined as a vaginal cephalic delivery that requires additional manoeuvres to deliver the fetus after the head has delivered and gentle traction has failed to deliver the after coming shoulders.

Shoulder dystocia (SD) is a relatively uncommon event, with reported incidence around 0.4% - 1.4% of all vaginal deliveries. Almost half of all cases of shoulder dystocia have no indication making it difficult to predict, therefore anticipation and planning are the key to successful management.

In cases where risk factors are identified i.e. previous shoulder dystocia, macrosomia, diabetes, obesity, prolonged first and second stage, augmentation of labour, instrumental birth, a plan needs to be in place for safe and successful management.

After delivery of the fetal head:

- Normal downward traction has failed to deliver the shoulders – excessive downward traction **SHOULD NOT** be performed in order to prevent brachial plexus injury.
- Specific manoeuvres are employed to birth the fetus and minimise risk to both the mother and fetus.

Early detection and a coordinated plan of care for a woman with suspected or diagnosed shoulder dystocia will optimise fetal and maternal outcome, plus minimise associated complications.

Obstetric emergency is any clinical situation involving a maternity patient where immediate medical/ midwifery assistance is required.

Further Readings

Royal College of Obstetricians and Gynaecologists, Green-top Guideline No. 42, 2nd Edition / March 2012

This Green-top guideline's purpose is to review the current evidence regarding the possible prediction, prevention and management of shoulder dystocia; it does not cover primary prevention of fetal macrosomia associated with gestational diabetes mellitus.

King Edward Memorial Hospital Obstetric and Gynaecology, Government of WA, Clinical Guideline – Shoulder Dystocia

King Edward Memorial Hospital Obstetric and Gynaecology's clinical guideline on shoulder dystocia.

Guideline Shoulder Dystocia, The Royal Women's Hospital

The Royal Women's Hospital's (Victoria, Australia) clinical guideline on shoulder dystocia.

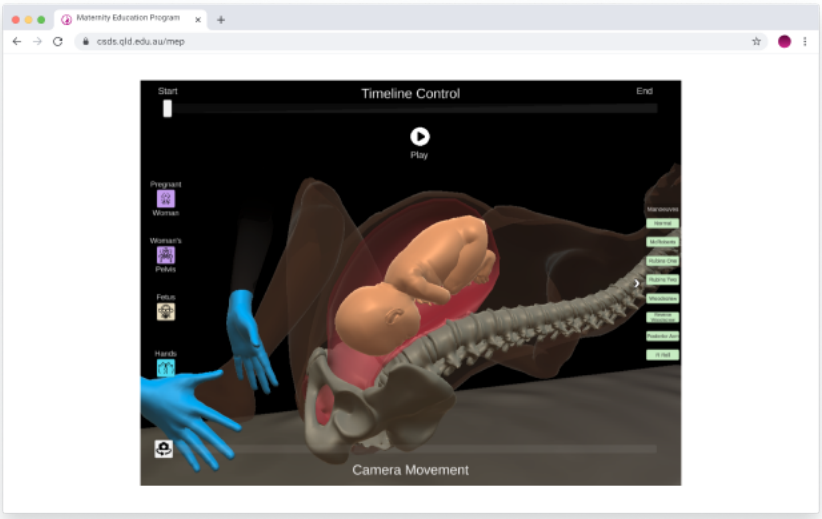
Emergency Management

Interactive 3D animation tool

The interactive 3D animation tool was developed to be used as a training aid to teach the mechanisms and manoeuvres of shoulder dystocia.

This interactive animation requires a modern browser capable of running WebGL. To check if your browser supports WebGL, visit https://get.webgl.org/.

Access the tool via https://bit.ly/2Br2gx8



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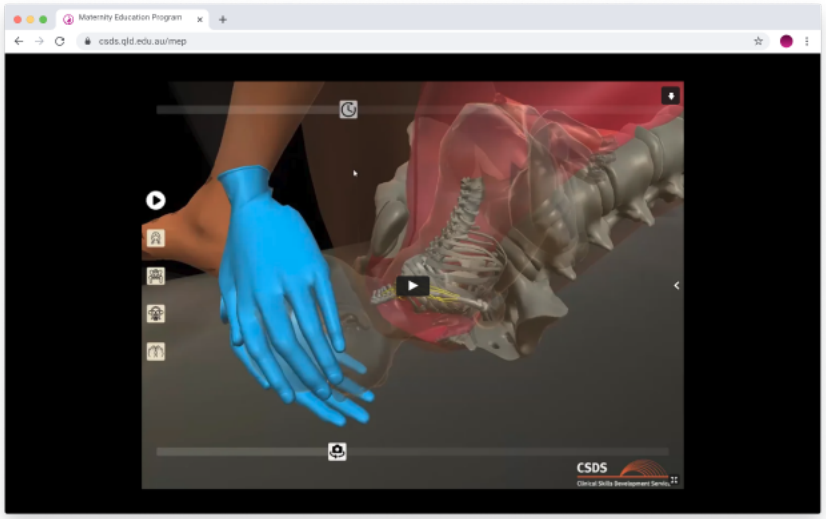
Introductory video

Watch an introductory video on the interactive 3D animation at https://bit.ly/2HFUNwY.



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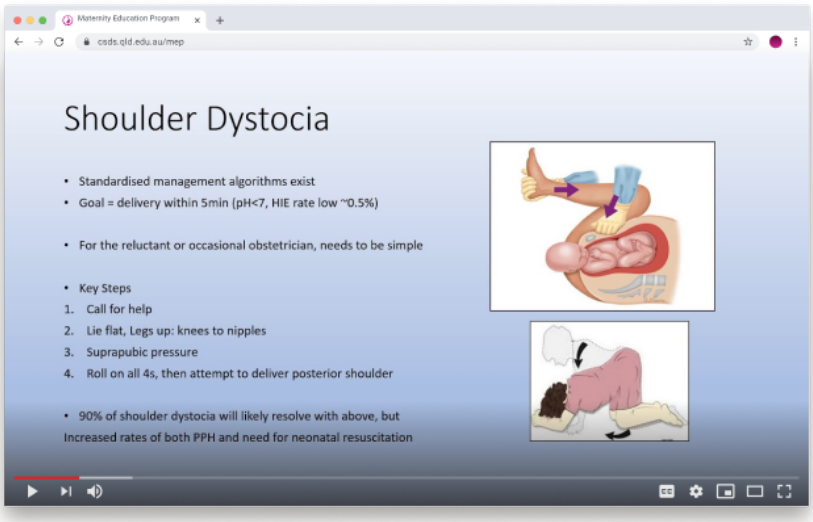
Online video about shoulder dystocia

Watch the Obcast's Shoulder Dystocia video at https://bit.ly/3kzElat.



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Management of Shoulder Dystocia

Adapted from Algorithm for the Management of Shoulder Dystocia. Royal College of Obstetricians & Gynaecologists. Shoulder Dystocia, Green-top Guideline No.42, March 2012, Appendix 2.

CALL FOR HELP
Experienced midwife/obstetrician
Neonatal team

Discourage pushing
Lie flat, move buttocks to edge of bed

MCROBERTS MANOEUVRE
(Knees to chest)

Consider ALL FOURS position
(if appropriate)

SUPRAPUBIC PRESSURE
(Rubins 1)

(routine axial traction)

Consider episiotomy if it may assist internal manoeuvres

Can be performed in any order

INTERNAL ROTATIONAL MANOEUVRES
Rubins II: Woodscrew : Reverse woodscrew

DELIVERY OF POSTERIOR ARM

Inform consultant and anaesthetist

If above manoeuvres fail, consider:
Repeat all the above and/or changing operator

Consider cleidotomy, Zavanelli or symphysiotomy

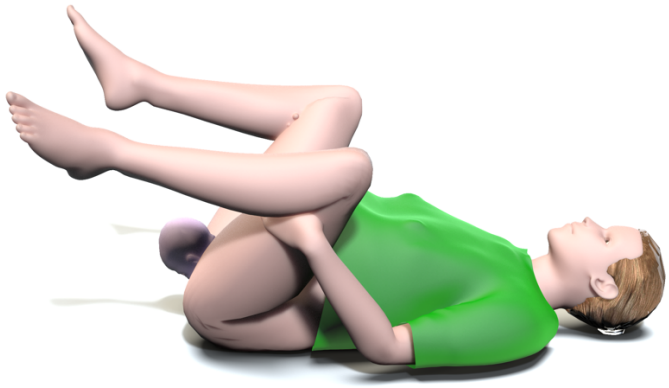
Baby reviewed by Neonatal Team. Document all actions and complete a clinical incident report

Debrief patient, support people and staff

Specific Management

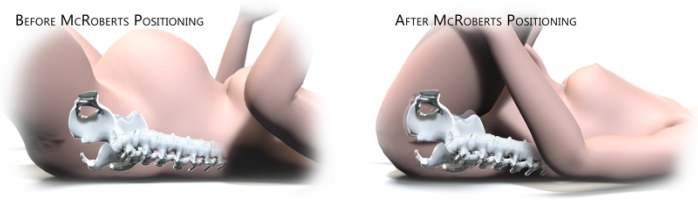
The following diagrams depict the different manoeurves used to eleviate shoulder dystocia. Some of the treatments are external and some involve internal manoeuvres. They are listed with external manoeuvres first followed by internal manoeuvres, the order of management is the decision of the clinician and **does not have to follow order**.

External manoeuvres



McRoberts position

Woman laying completely flat, legs elevated towards chest, this widens the pelvic outlet.

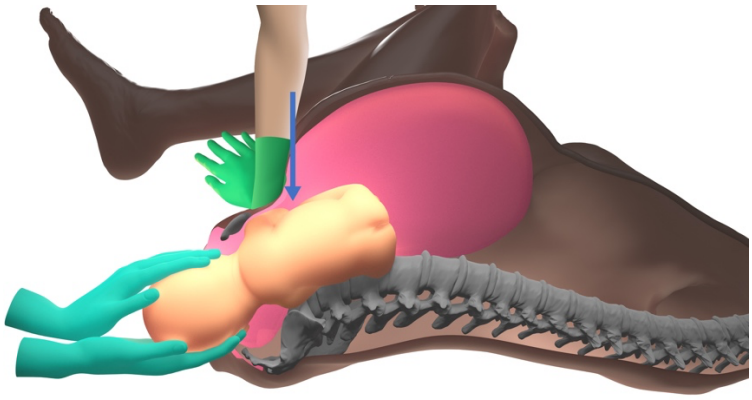


Pelvic angle

Change of pelvic angle during McRoberts Position.

All fours position (Gaskin manoeuvre)

This position may also work like McRoberts in widening the pelvic outlet.

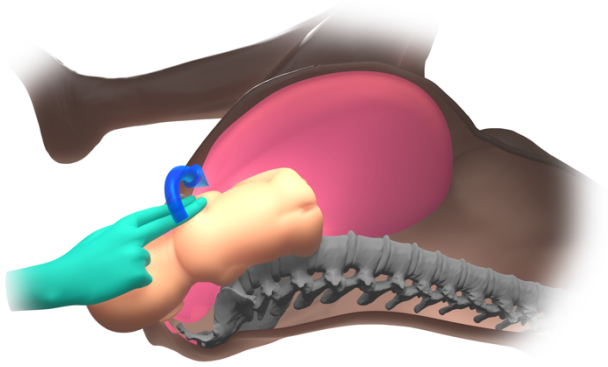


Rubins I (external manoeuvre)

An assistant applies pressure above the symphysis pubis in a downward and lateral motion over the fetal shoulder to attempt to release the anterior shoulder from the pubic bone.

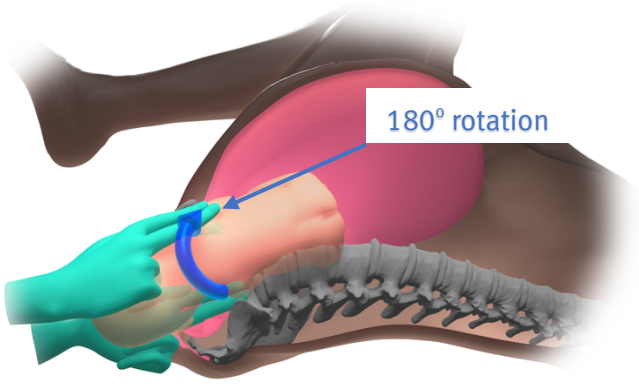
A rocking action can also be applied with this manoeuvre.

Internal manoeuvres



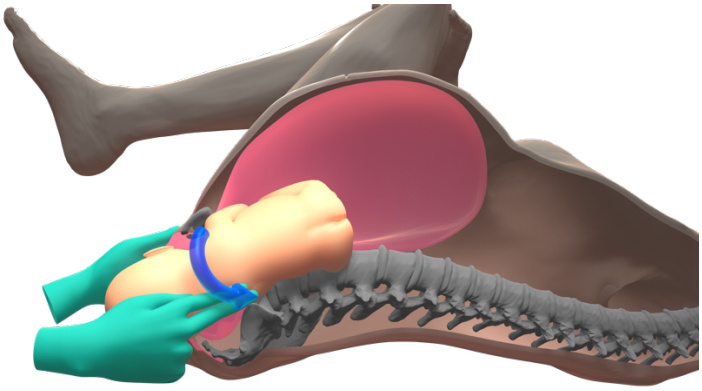
Rubins II (internal manoeuvre)

The accoucheur places two fingers on the anterior shoulder of the fetus (internally) and pushes in a forward and downward direction to attempt to dis-impact the anterior shoulder from the pubic bone.



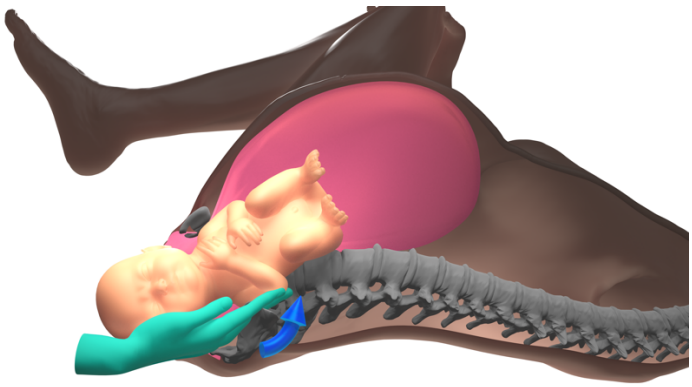
Woodscrew Manoeuvre (internal)

The accoucheur places two fingers on the posterior aspect of the anterior shoulder of the fetus (internally) and two fingers on the anterior aspect of the posterior shoulder, then rotates the fetus forward through 180° so the posterior shoulder will now be anterior



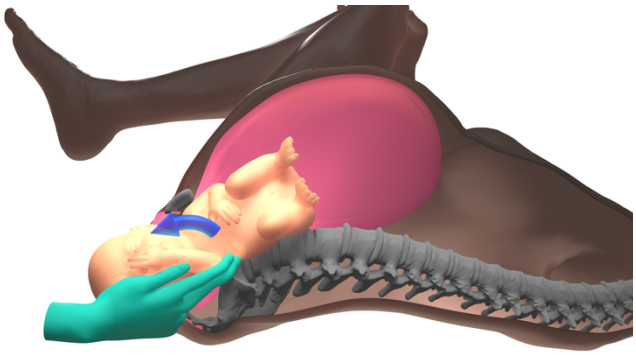
Reverse woodscrew manoeuvre (internal)

The accoucheur places two fingers on the posterior shoulder and two fingers on the anterior aspect of the anterior shoulder and rotates the fetus backwards through 180° so that the posterior shoulder will now be anterior.



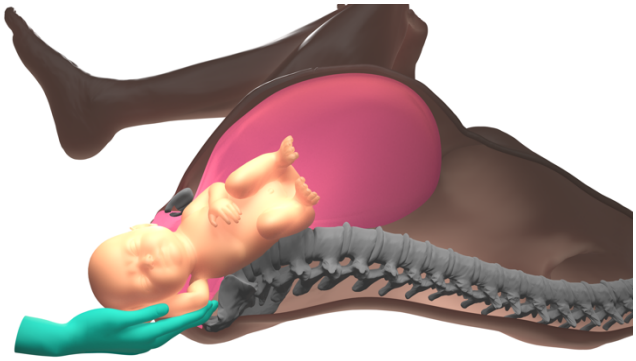
Removal of the posterior arm step 1

The accoucheur inserts their whole hand posteriorly and follows the posterior arm down the humerus to the fetal elbow. Once the elbow has been located go to step 2 below.



Removal of the Posterior Arm Step 2

Using the fetal elbow, the fetal arm is brought towards the fetal face.



Removal of the Posterior Arm Step 3

The arm is brought past and sweeps the fetal face and then brought out of the vagina. Once this has occurred then deliver the anterior shoulder using axial traction.

References

This resource kit has been inspired by the Optimus BONUS project of the Children's Health Queensland's Simulation Training Optimising Resuscitation for Kids (STORK) service. To find out more information about STORK and their Optimus project, visit their website.

1. Dahlke, JD; Bhalwal, A; Chauhan, SP (June 2017). "Obstetric Emergencies: Shoulder Dystocia and Postpartum Hemorrhage". Obstetrics and Gynecology Clinics of North America. 44 (2): 231-243.

2. Children's Health Queensland. 2020. Queensland Paediatric Emergency Care Education | CHQ. [online] Available at: ‹https://www.childrens.health.qld.gov.au/research/education/queensland-paediatric-emergency-care-education/› [Accessed 24 July 2020].

3. Royal College of Obstetricians and Gynaecologists. Green-top Guideline No. 42 2nd Edition / March 2012

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The survey should take no more than 5 minutes to complete. Scan the QR code with your device or visit this link

https://www.surveymonkey.com/r/Z8Q398N

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