

# Shoulder Dystocia

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### Purpose of guideline

This guideline establishes the importance of recognition of the risk factors associated with shoulder dystocia and the emergency management when it occurs within Auckland District Health Board (ADHB).

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#### 2. Definitions

Shoulder dystocia is widely defined as a delivery that requires additional obstetric manoeuvres to deliver the foetus after gentle downward traction has failed. Shoulder dystocia occurs when either the anterior or less common the posterior foetal shoulder impacts on the maternal symphysis or the sacral promontory respectively.

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### 3. Background

Although the occurrence of shoulder dystocia is uncommon it is not rare with an incidence ranging from 0.58% to 0.70% of all deliveries. There are predisposing factors but largely it is an unpredictable event.

Maternal morbidity is also increased, particularly post partum haemorrhage, 3<sup>rd</sup> and 4<sup>th</sup> degree tears and post traumatic stress syndrome.

Infant morbidity includes brachial plexus injuries around 2.3% to 16% a minority of these being permanent. Other injuries include fractures of clavicles or humerus, hypoxia, neurological damage or death.

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### 4. Risk factors associated with shoulder dystocia

Pre labour	Intra-partum
Previous shoulder dystocia (10 times higher)	Prolonged first stage of labour
Foetal macrosomia > 4.5kg	Secondary arrest
Diabetes Mellitus	Prolonged second stage of labour
High maternal body mass index > 30	Oxytocin augmentation
Induction of labour	Assisted vaginal delivery



#### **Key points**

- The majority of cases of shoulder dystocia occur in women with no risk factors
- Shoulder dystocia is therefore unpredictable and largely unpreventable
- All clinicians should be aware of the methods for diagnosing shoulder dystocia and the techniques required to facilitate birth
- Clinicians should be aware of existing risk factors but must always be alert to the possibility of shoulder dystocia with any birth
- Simulation training with models is recommended

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### 5. Intrapartum: high risk cases

If shoulder dystocia is anticipated then pre-emptive preparation may help:

- An experienced obstetrician should be in the labour and birthing suite for the second stage
- All practitioners delivering must be conversant with the techniques required to facilitate delivery complicated by shoulder dystocia

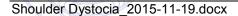
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### 6. Delivery

Timely management of shoulder dystocia requires prompt recognition:

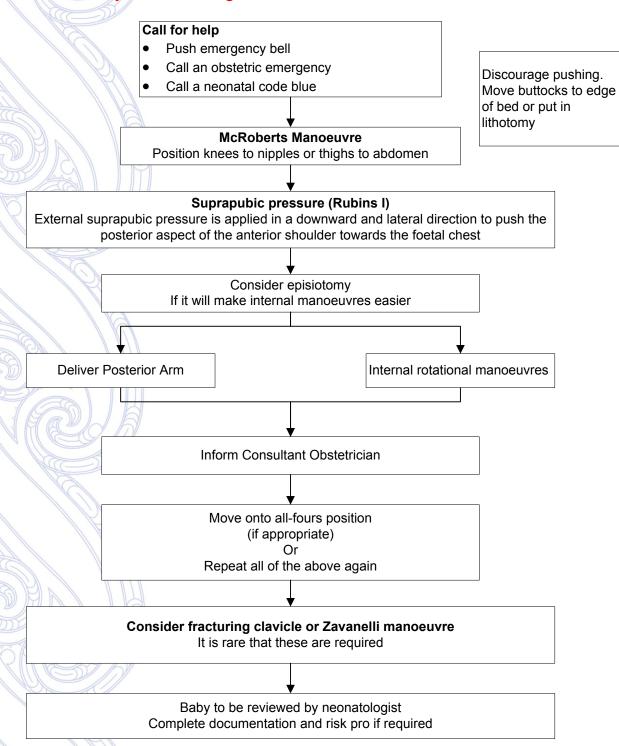
- Difficulty with delivery of the face and chin
- Failure of restitution of the head
- The head remains tightly applied to the vulva and may even retract ("turtle-neck") sign
- Failure of the shoulders to deliver with routine traction

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### 7. Shoulder dystocia management flowchart



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#### 8. Documentation

Accurate and comprehensive documentation of a difficult and potentially traumatic birth is essential. It is important to record:

- Time of delivery of the head
- The manoeuvres performed; the timing and sequence
- Which was the anterior shoulder
- The time of delivery of the body
- The condition of the baby
- Umbilical cord lactates or gases
- Estimated blood loss
- Maternal perineal and vaginal examination
- The staff members who attended

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### 9. Debriefing

- Parents as soon as possible after the birth with an explanation of the birth and prior to discharge home and document discussion
- Staff members involved as soon as convenient

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### 10. Supporting evidence

- Baskett, T.F. (1995). <u>Perinatal implications of shoulder dystocia</u>, *American College of O&G*, Vol 86, pp 14-17
- Bruner, J. (May 1998). <u>All-fours manoeuvre for reducing shoulder dystocia during labour</u>, *Journal of Reproductive Medicine*, Vol 43
- Deering, S. (2004). <u>Evaluation of residents delivery notes after a simulated shoulder dystocia</u>, *American College of O&G*, Vol 104
- Gaskin, I.M. (1998). <u>The all fours manoeuvre for reducing shoulder dystocia</u> during labour
- Gherman, R. (March 1997). <u>The McRoberts' Manoeuvre for Alleviation of Shoulder Dystocia: How successful is it?</u> Am J Obstet Gynecol, Vol 176(3), pp 656-661
- Gherman, R. (Sept 2003). <u>A comparison of shoulder dystocia-associated transient</u> and permanent brachial plexus palsies, O&G, Vol 102, pp 544-8
- Gherman, R.B. (June 2002). <u>Shoulder Dystocia: An evidence-based evaluation of the obstetric nightmare</u>, *Clinical Obstetrics & Gyneco*, Vol 45(2), pp 345-362
- Journal of Reproductive Medicine, Vol 43, pp 439-443
- Nesbit, T.S. (1998). <u>Shoulder dystocia and associated risk factors with</u>
   <u>macrosomic infants born in California</u>, *American Journal of Obs & Gyn*, Vol
   179(2), pp L176-480
- Sandmire, H. (2000). <u>Erbs palsy: concepts and causation</u>, The American College of O&G, Vol 95, pp 801-802
- Sandmire, H.B., DeMott, F. (2002). <u>Erbs Palsy Causation: A History Perspective</u>, Birth, Vol 29, pp 52-5



#### 11. Associated ADHB documents

Intrapartum Care - Normal Labour & Birth
Perineal Tears - 3rd & 4th Degree
Postpartum Haemorrhage
Resuscitation of Newborns

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#### 12. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this ADHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

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#### Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed **before** the scheduled date, they should contact the owner or the Clinical Policy Advisor without delay.

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