

FACTFILE: GCSE HOME ECONOMICS: Child Development



Methods of Pain Relief

Learning Outcomes

Students should be able to:

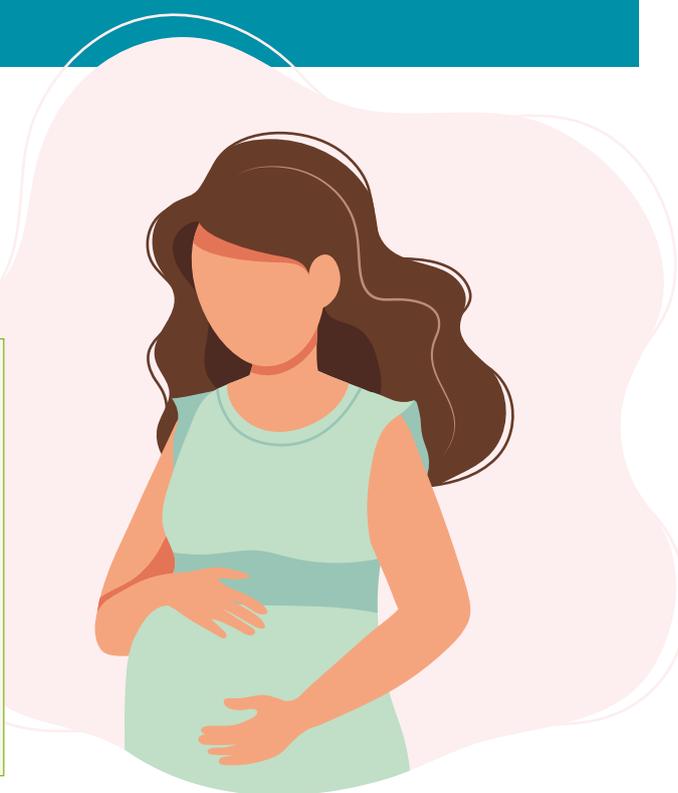
- Evaluate the types of pain relief available during labour, including medical and complementary



What options are available?

Medical: midwives and anaesthetists in hospital administer these methods of pain relief. The pregnant woman may experience side effects of the medication.

Complementary: this is a different approach to pain management, which includes therapies that are not usually part of conventional care such as hydrotherapy. These methods of pain relief may not be available in all hospitals.



Medical Methods of Pain Relief

TENS	Advantages	Disadvantages
<p>TENS stands for transcutaneous electrical nerve stimulation. It's a form of pain relief that can be controlled with a hand-held device. It works by sending mild electrical impulses to sticky pads on the lower back. TENS is thought to work as the electrical pulses stimulate nerves that run to the spinal cord and block the transmission of pain.</p>	<ul style="list-style-type: none"> • It is portable • It can be used safely for long periods of time. • There are no lasting side-effects. • It can be used for a home and hospital birth. • It is easy to use and the mother controls it. 	<ul style="list-style-type: none"> • May only offer pain relief in the early stages of labour. • Not all hospitals have TENS machines so it may need to be hired. • It cannot be used in a birthing pool.

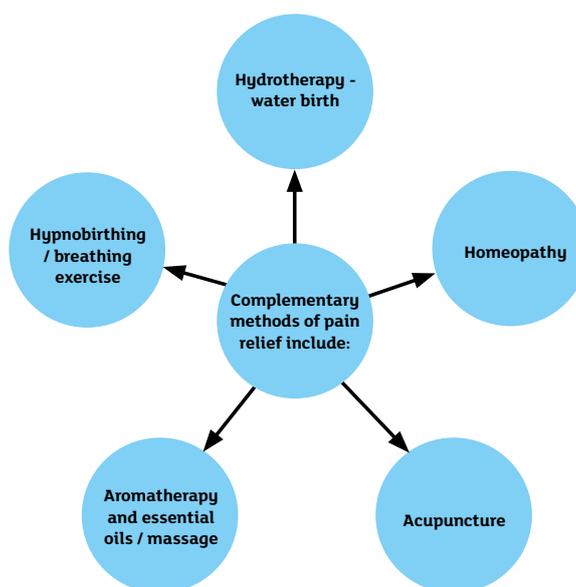
Pethidine	Advantages	Disadvantages
<p>Pethidine is a morphine-like opioid. It helps to relieve pain by making the woman more relaxed. The midwife will inject pethidine into the thigh and it will take between 20-30 minutes to take effect.</p>	<ul style="list-style-type: none"> • Can be administered by a midwife. • Helps the mother to relax which enables her to rest during contractions. 	<ul style="list-style-type: none"> • May cause the woman to feel less in control. • Can cause drowsiness, nausea and dizziness. • It crosses the placenta and may affect the baby's breathing.

Entonox – Gas and Air	Advantages	Disadvantages
<p>Entonox is a mixture of nitrous oxide (laughing gas) and oxygen. The pregnant woman inhales it through a mask or a mouthpiece when contractions occur to help manage her pain.</p>	<ul style="list-style-type: none"> • Mother is in control over how much she wants to use. • It works quickly but wears off when the mother stops breathing it in. • It will not harm the baby. • Can be used during a water birth. 	<ul style="list-style-type: none"> • Does not take away all the pain. • It may cause the mother to feel light headed and nauseous. • If used for long periods of time, can cause a dry mouth.

Epidural	Advantages	Disadvantages
<p>Epidural anaesthesia is a type of regional anaesthesia, which stops a pregnant woman feeling pain from contractions without making her go to sleep. A specialist doctor called an anaesthetist carries it out. The anaesthetist uses a needle to put a small plastic tube (called a catheter) into the area around the spine (epidural space) where the nerves of the uterus, birth canal and spinal cord meet. An epidural will completely numb the woman from the waist down.</p>	<ul style="list-style-type: none"> • The mother will feel calmer and less stressed during her labour. • The epidural offers complete pain relief so a caesarean section could be given under epidural. • Does not cause drowsiness, this enables the pregnant woman to make informed decisions about her labour and delivery. 	<ul style="list-style-type: none"> • The pregnant woman cannot feel contractions so must rely on the midwife to tell her when to push. • It can take up to 40 minutes for the pain relief to take effect. • A catheter will need to be fitted in the urinary tract because the mother will not be able to pass urine. • The midwife will need to monitor the pregnant woman's blood pressure regularly as the epidural may cause her blood pressure to fall. Most women will be given an intravenous drip of fluids to prevent this from happening.

Remifentanyl	Advantages	Disadvantages
<p>Remifentanyl is a powerful morphine-type drug offered to women in labour. It is administered through a drip inserted into a vein in the arm or hand and attached to a patient-controlled analgesia (PCA) pump. The pregnant woman presses the button on the pump during every contraction and a small dose of remifentanyl is given directly into the bloodstream providing pain relief on demand, which reduces the severity of labour pain.</p>	<ul style="list-style-type: none"> • The pregnant woman controls when the pain relief is administered. • Helps the mother to feel relaxed during contractions. • The pain relief wears off quickly in between use helping the mother to feel in control. 	<ul style="list-style-type: none"> • The pregnant woman may experience nausea, vomiting, drowsiness and dizziness. • It may not take all the pain away so additional pain relief may need to be used for example, gas and air. • Remifentanyl can pass to the baby and cause them to be drowsy after the delivery.

Complementary Methods of Pain Relief



Why choose complementary therapies?

Some women choose these alternative treatments to manage their pain during labour as they:

- Are less invasive.
- Do not cross the placenta so will not affect the baby.
- Want to experience a natural birth.
- Want to be in control of their labour.
- Help them to feel more relaxed and less anxious about the delivery.



Many of these techniques are not offered in hospitals so the pregnant woman will need to investigate these options herself. There are courses on hypnobirthing available for women and their partners to attend such as <https://www.hypnobirthingbelfast.com/>

Hydrotherapy / Water birth	Advantages	Disadvantages
<p>Hydrotherapy during childbirth involves the pregnant woman immersing herself in warm water in a birthing pool (36.5 °C–37 °C) to chest level during labour. It is thought that the warm water helps to relax the mother during contractions by reducing adrenalin and promoting the release of the body's natural hormones to cope with labour pains. Midwives must regulate the temperature of the water as if it is too hot, it may lead to exhaustion, blood pressure problems, and contractions may slow down.</p>	<ul style="list-style-type: none"> • Water decreases the effect of gravity and can help women to move around more freely and change into a comfortable position. • The muscles of the back and abdomen relax. • Encourages the release of endorphins. 	<ul style="list-style-type: none"> • It does not take away all of the pain. • There is a possible risk of infection • This facility is not being offered in all hospitals. • Can be more difficult for the midwife to monitor the baby.

Hypnobirthing / Breathing Techniques	Advantages	Disadvantages
<p>Hypnobirthing is a method of pain management that can be used during labour and birth. It involves using a mixture of visualisation, relaxation and deep breathing techniques. https://www.youtube.com/watch?v=G0RrUYXzc88</p> <p>Breathing deeply, in through the nose and out through the mouth, can help women stay calm and reduce discomfort in labour. https://www.youtube.com/watch?v=2V2xugIVjIE</p>	<ul style="list-style-type: none"> • Hypnobirthing can help to manage the stress hormones such as adrenalin, and reduce anxiety, which should lead to a calmer birth. • Practising hypnobirthing – whether it's at a class, with a book or CD – may help the mother to feel more prepared and in control when labour starts. • Hypnobirthing can help to involve the birthing partner during labour. • It helps to give the mother focus which can help to distract from the pain of labour. 	<ul style="list-style-type: none"> • It will not take away all of the pain. • If the mother panics, she may not be able to remember the techniques taught. • Hypnobirthing classes are taught privately so there will be a financial cost.

Aromatherapy	Advantages	Disadvantages
<p>Aromatherapy is the use of essential oils. These oils come from plants, such as herbs and flowers, and they are highly concentrated. Not only do the oils smell pleasant, but they also contain therapeutic chemicals. Essential oils may send chemical messages to the part of the brain that affects the pregnant woman's mood and feelings. This happens either when the scents are breathed in or when absorbed by the skin through massage.</p> <p>The following oils are safe to use in labour:</p> <ul style="list-style-type: none"> • Roman chamomile • Clary sage • Frankincense • Ginger • Lemon grass • Lavender • Mandarin 	<ul style="list-style-type: none"> • It can help to reduce fear, stress and anxiety, headache, dizziness and nausea during labour. • It will not harm the baby. • Can help the birthing partner to be more involved during labour e.g. massage. 	<ul style="list-style-type: none"> • The pregnant woman will have to buy the essential oils. • A qualified aromatherapist must mix the oils.

Homeopathy	Advantages	Disadvantages
<p>Homeopathy is a natural form of medicine used to treat both acute and chronic conditions. It aims to trigger the body's natural system of healing. Homeopathic medicines are safe to use and they rarely cause side-effects.</p>	<ul style="list-style-type: none"> • It does not interfere with other medications being taken. • Homeopathic medicine is non-invasive. 	<ul style="list-style-type: none"> • The pregnant woman must buy these products from a homeopath.

Acupuncture	Advantages	Disadvantages
<p>Acupuncture is a treatment derived from ancient Chinese medicine. Fine needles are inserted at certain sites in the body which stimulates the sensory nerves under the skin and in the muscles.</p> <p>This results in the body producing natural substances, such as pain-relieving endorphins.</p>	<ul style="list-style-type: none"> • Helps the body to produce natural painkillers – endorphins. • It will not harm the baby. • Can help the pregnant woman to relax. 	<ul style="list-style-type: none"> • Acupuncture is not provided by the NHS so each treatment must be paid for.

Activities:

- Class Debate: This house believes that complementary therapy is more effective than medicinal alternatives.
- Prepare a range of questions to interview a midwife for a pregnant woman considering:
 - a) A home birth
 - b) A water birth
 - c) A hospital birth

References / Resources

<https://www.nct.org.uk/labour-birth/your-pain-relief-options/pain-relief-labour#painkilling-drugs-in-labour-opioids-such-as-pethidine-diamorphine-meptid-and-remifentanyl>

<http://www.boltonft.nhs.uk/services/maternity/information/complementary-therapies/homeopathy/>

Leaflet on pain relief: <http://southees.nhs.uk/content/uploads/Pain-relief-in-labour.pdf>

Leaflet: "Coping Methods and Options for Pain Relief in Labour". www.guysandstthomas.nhs.uk

Publication: *The Pregnancy Book*, Chapter 9, Labour and Birth, pages 104-106

www.publichealth.hscni.net/publications/pregnancy-book-0

