

What is NAS?

Neonatal Abstinence Syndrome (NAS) is the withdrawal process babies may experience after birth if their mothers have used drugs or alcohol during pregnancy. Babies can experience NAS from heroin or other opiate drugs, including methadone or buprenorphine. Babies can also experience NAS if their mothers have used amphetamines, benzodiazepines (benzos), inhalants (chroming), cocaine and alcohol although this is less common than with opiates. Your midwife or doctor can provide you with information about how drugs and alcohol can affect your pregnancy and developing baby. It is important to seek help from your doctor, midwife or health worker about your drug or alcohol use. Getting help will reduce the risk of problems occurring. It is never too late to ask for help during your pregnancy.

Methadone and Buprenorphine treatment in pregnancy

Methadone and Buprenorphine stabilisation throughout pregnancy are safe and recommended treatment for women using heroin regularly in pregnancy. It is not recommended that you cease methadone or buprenorphine treatment during pregnancy, as withdrawal can cause pregnancy complications such as miscarriage, prematurity and stillbirth.

Heroin use and treatment with methadone and buprenorphine have not been linked to abnormalities in babies.

Your methadone or buprenorphine dose will need to be increased at times throughout your pregnancy when you begin to experience mild withdrawal symptoms. This is due to pregnancy weight gain and changes in your body. Regular appointments with your prescribing doctor are recommended to ensure mild withdrawal symptoms are treated promptly by increasing your methadone or buprenorphine dose.

Women stabilised on methadone or buprenorphine generally have fewer pregnancy problems and are more likely to give birth to their baby at full term than women who continue to use heroin. However, it may not prevent your baby from experiencing NAS.

Symptoms of NAS

Most babies will experience some signs of NAS if their mothers have used heroin or have been treated with methadone or

buprenorphine. During your pregnancy, your baby receives some heroin, methadone or buprenorphine through the placenta.

NAS from other drugs and alcohol is less common although it is still important that your baby is observed for signs of NAS in hospital.

After birth, your baby will no longer be receiving any of these substances and therefore may show some signs of withdrawal. Your baby may appear to be more unsettled and require more comforting than other babies.

NAS usually presents with fairly subtle signs in the early stages, becoming more obvious over a period of three to five days, if it is going to be a problem for your baby. NAS can take up to seven days after birth to reach its peak severity.

Whilst the signs of NAS will be obvious to you and the midwives and doctors caring for your baby, it will not be obvious to other patients and your visitors.

Some babies experience a late withdrawal with symptoms taking up to two weeks to present. This is more common when there has been benzo use during pregnancy.

Common NAS symptoms include: unsettled behaviour, frequent sneezing, tremors, increased muscle tone, fever, poor feeding, vomiting, loose bowel actions and disturbed sleep patterns.

It is important for you to understand that NAS is a condition that can be treated safely and effectively with no long-term effects on your baby.

Caring for your baby

After birth, you and your baby are settled into the postnatal area together. Your baby will be placed in the care of a paediatrician (a doctor who specialises in the care of babies). While you are in hospital the paediatrician will review your baby every day.

Sometimes babies require care in the Special Care Nursery (SCN). If your baby requires care in SCN immediately after birth, it is usually for a reason other than NAS. Other medical conditions requiring care in SCN include prematurity, low birth weight, low body temperature and breathing difficulties.

You and your baby will stay in hospital usually for seven days after birth, so that your baby can be observed for signs of NAS. This will also give you time to get to know and learn how to care for your new baby.

During your stay in hospital, the Finnegan Scoring System is used to assess the degree of withdrawal your baby is experiencing. Dr Loretta Finnegan is an American paediatrician who had a lot of experience in the care and treatment of withdrawing babies.

Finnegan scoring system

The Finnegan Scoring System is used to assess if your baby is experiencing mild or significant NAS. It lists the many signs of NAS a baby may experience. Babies do not experience all the signs listed, but tend to display a small number of the same signs when assessed over several days. The midwives and doctors do not rely solely on the Finnegan Scoring System. They also observe how your baby is managing and will ask your opinion about your baby's condition.

Assessing your baby for NAS

Your baby will be assessed for signs of NAS using the Finnegan Scoring System

Assessment of your baby for NAS will commence when your baby is approximately two hours old.

The midwife caring for you will be responsible for assessing your baby. However, it is important that you are involved in the assessment, as you will notice the signs of

NAS your baby is experiencing when you are feeding and providing care for your baby

The correct time to assess your baby is a half hour to one hour after each feed.

At this time your baby is more likely to be contented and comfortable so a more accurate score will be obtained. Most babies being observed for NAS will be fed every 3 to 4 hours. If your baby is assessed just prior to a feed being due, he may receive a false high score. Your baby may be unsettled due to hunger and not withdrawal.

You can ensure your baby is assessed at the correct time.

It is important that you let your midwife know when your baby is due to be assessed (half hour to one hour after each feed).

Each sign of NAS is allocated an individual score; from one up to five.

The scores for each sign of withdrawal your baby is experiencing are combined to give a total score for the period of time since the last feed.

If your baby records a total score of eight or higher, on three consecutive occasions, your baby will be transferred to SCN for further assessment of NAS

An isolated high score (eight or greater) may not be significant. Your baby will have unsettled periods just like other babies for reasons other than NAS. Babies who are withdrawing significantly will consistently score for the same signs; therefore you will see a pattern of withdrawal signs developing.

If your baby's scores remain high, the commencement of medical treatment will be discussed with you.

Providing supportive care for your baby

Most babies will experience mild withdrawal symptoms. It is often enough for them to be comforted by their mother and other family and friends. If your baby is experiencing mild or significant withdrawal, you may find the following suggestions helpful.

- **Comfort, cuddles and close contact.**
Your baby will greatly benefit from close comfort and time spent with you.
- **Provide a safe sleeping environment for your baby.**
It is important that you do not sleep your baby in your bed with you or your partner or in an unsafe sleep setting. This can increase the risk of Sudden Infant Death Syndrome (SIDS) or a sleeping accident. Drugs and alcohol and medications such as methadone or buprenorphine may cause you to sleep more deeply and you may be less aware of your baby in your bed.
- **Smaller, frequent feeds.**
Your baby may have an uncoordinated sucking and swallowing pattern until the NAS symptoms have reduced. Often babies need smaller and more frequent feeds to overcome this temporary condition.
- **Breastfeeding provides the best food for your baby.**
Your baby will be comforted by the close contact with you that breastfeeding provides.
However, breastfeeding may be harmful to your baby if you are still using drugs and alcohol. If you are still using drugs and alcohol, your midwife, doctor or health worker can help you to access support to reduce and cease your drug use. They will also help you to develop a safe breastfeeding plan.
If you are on methadone or buprenorphine, you can still breastfeed your baby. Speak to your doctor or midwife about breastfeeding and the effects other medications may have on breastfeeding.
- **Offer your baby top-up feeds until your breast milk supply is established.**
Your baby will be more settled and comfortable if she is not hungry. Top-up feeds may prevent a false high score that could be due to hunger. Top-up feeds using a cup or syringe are not recommended as some babies experiencing NAS may have swallowing difficulties. Your baby will also be comforted by the sucking action required for feeding. Once you are producing enough breast milk for your baby (three to four days after birth) you will not have to use formula.
- **While you're in hospital, weigh your baby every day.**
All newborn babies lose varying amounts of weight. Babies who are experiencing NAS can lose more weight than other babies. Top-up feeds of formula or expressed breast milk after each breastfeed, until your milk supply is established, helps prevent excessive weight loss.
- **Use a pacifier or dummy.**
Offering your baby a dummy may be helpful, if your baby is unsettled and sucking a lot between feeds. This may help prevent false high scores and comfort your baby.
- **Swaddle your baby but be careful not to overheat.**
Swaddling is when you wrap your baby firmly in a soft baby blanket for comforting. Your baby may feel more comfortable if nursed and put to sleep in this way. Swaddling your baby may help minimise tremors. However, it is important that your baby is not overheated. The midwives will check your baby's temperature regularly when assessing for signs of NAS.
- **Provide a quiet and calm environment.**
When your baby is asleep, allow him to sleep undisturbed. Babies who are experiencing NAS often have difficulty falling asleep and are easily disturbed by touch and noise. If possible, minimise visitors and noise around your baby. Try to provide a calm environment that is good for you and your baby.

Medical treatment for NAS

Some babies will continue to have high scores (a total score of 8 or higher on 3 consecutive occasions), despite the good supportive care provided by their mothers. These babies will require admission to SCN and the commencement of medical treatment. The type of treatment used depends on which type of drug your baby is withdrawing from. The medications given are morphine and phenobarb.

If your baby is experiencing NAS due to methadone, buprenorphine or heroin, the treatment your baby will receive is **morphine syrup**. This treatment will require your baby to be admitted to the Special Care Nursery (SCN). Morphine treatment is given to your baby orally every four to six hours. The dose of morphine is individually assessed for each baby according to birth weight.

Once your baby's NAS has stabilised, morphine treatment is gradually reduced by 10 percent every three days. The length of time babies receive morphine treatment in hospital is approximately 28 days.

If your baby is experiencing NAS due to alcohol or other drugs (benzos, amphetamines, cocaine or inhalants), your baby will receive phenobarb. This treatment also requires your baby to be admitted to SCN. Phenobarb is usually given orally twice a day. The dose of phenobarb is individually assessed for each baby according to birth weight. Once your baby's NAS has stabilised, phenobarb treatment is slowly reduced every 4th day. Reduction in dose may occur more slowly depending on how your baby is coping with the reduction in medication.

Special Care Nursery

Babies being treated for NAS are usually nursed in an open cot. Our SCN welcomes parents and family to visit every day. You are encouraged to continue to breastfeed and be fully involved in your baby's care.

Your family will be allocated a Care Manager in the SCN. Your Care Manager will be your contact person in the SCN and will keep you

updated on your baby's progress and answer any questions you might have.

If your baby is admitted to SCN and commences treatment for NAS, you will be discharged from hospital, provided you are well. Sometimes this will occur earlier than day 7.

The midwives on the postnatal ward and the nurses in SCN will ensure you are comfortable with expressing your breast milk if you are breastfeeding. They can also provide information regarding breast pump hire if required.

Infant home based withdrawal

Some parents have the opportunity to take their babies home while they are still receiving treatment. This is available to parents who are no longer using drugs, have stabilised their lifestyle and have supports in place. Parents are taught how to administer the oral morphine or phenobarb treatment to their baby before their baby is discharged from hospital. Parents are required to attend weekly paediatric appointments at the Women's Hospital. During the treatment time at home, the 'Hospital in The Home' (HITH) nurses will visit or telephone daily. The maternal and child health nurse will also arrange to visit you. Please discuss with your doctor, midwife or social worker if you would like to be considered for this program.

Caring for yourself

During your time in hospital, it is important to care for yourself.

- Encourage your partner, support person or close family member to assist you with the care and comforting of your baby in hospital.
- When your baby is asleep, try to rest. Your body is recovering from the birth experience and emotionally you may feel up and down.
- Take short breaks regularly.
- Take the time to relax and enjoy your new baby.
- Ask the midwives for assistance and support. They are there to help you and to teach you how to care for your new baby.

- Eat and drink healthy food. The dietician will visit you and ensure you receive the food and supplements you need.

Remember that you are the best person to look after your baby

Taking your baby home

Babies who have been observed or treated for NAS may be more unsettled than other babies. They may require extra supportive care in the first few months at home. Therefore, it is important that you are well supported by family, friends or support workers. Your midwife or social worker can assist you to access supports.

Following discharge from hospital, it is important that your baby has follow-up appointments with the paediatrician at the hospital. The paediatrician will check that your baby is healthy and can answer any questions you may have regarding your baby's health and development.

It is also important to visit your local maternal and child health nurse to make sure that you and your baby are well and have the supports and assistance you need.

Contact Details

Women's Alcohol and Drug Service
8.30am - 5.30pm Monday to Friday
251 Faraday St Carlton Victoria 3053

Telephone (03) 9344 3631
Fax (03) 9344 2719
Email womens.ads@rwh.org.au
www.thewomens.org.au/alcoholdrugsservice

The Royal Women's Hospital
132 Grattan Street Carlton Victoria 3053
Telephone (03) 9344 2000

The Women's will be moving to the new hospital on the corner of Grattan St and Flemington Rd in mid 2008.

The Royal Children's Hospital
Flemington Road Parkville Victoria 3052
Telephone (03) 9344 5522

Maternal and Child Health
24 hour help line 132 229

Direct Line
for Drug & Alcohol counselling and referral
Free call (24/7) 1800 888 236

Women's Health Information Centre
for free information and resources
Melbourne callers (03) 9344 2007
Rural/country callers Free call 1800 442 007
Email whic@rwh.org.au
