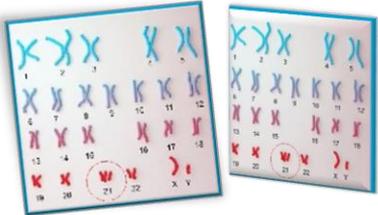


# STEP BY STEP INTO THE FUTURE

## AN INTRODUCTION TO DOWN SYNDROME



*Celebrating  
The Magical Extra Chromosome*



The Down Syndrome Association Gauteng

# INTRODUCTION

This booklet is an attempt to provide answers to questions frequently asked by parents of children with Down syndrome. Many of these questions are usually asked once the diagnosis has been confirmed. This booklet has been written by parents of children with Down syndrome in consultation with professionals working in the field of Down syndrome and it gives an introduction to Down syndrome.

## **SHARE THE JOURNEY – A message to parents CONGRATULATIONS ON THE BIRTH OF YOUR NEW BABY!**

Although things may not be the way you had planned, please enjoy every moment with your precious little bundle.

You will probably be feeling very overwhelmed by everything right now and at this stage might not be ready to read through this booklet. In that case, use the content page to guide you to the information you need now and after reading that, keep this booklet in a safe place for when you feel ready for the other information.

Some of these feelings may be shock, sadness and numbness. It is normal and acceptable for parents to go through a period of mourning for the imagined, or hoped-for, child they expected. Once you have said “good-bye” to the baby you expected, it will be easier for you to embrace the new baby into your heart and life.

As shock fades, you may experience other reactions such as rejection, disbelief, anxiety, anger, disappointment and denial. This too is normal. Discuss these feelings with someone you trust. You will need someone who will listen, more than someone with all the answers. Be kind and patient with yourself. Always remember that it is no-one’s fault that your child has Down syndrome. It is important to remember that nothing you did before or during pregnancy caused Down syndrome. Down syndrome occurs in all races, in all social classes and in all countries throughout the world.

Do not hide the fact that your baby has Down syndrome. Tell grandparents, family and friends as soon as the diagnosis is medically confirmed and as soon as you are ready. You will benefit enormously from their support. Remember they will take their cue from you. If you are positive about your baby, they will be too. The more your child is exposed to your family and community, the sooner understanding and acceptance will occur.

Like all parents of a new baby, there is much to learn. However, you have the benefit of years of ongoing research, which has been documented to help you through how and what to do. Do not be too hard on yourself or be nervous – you're certainly not alone. In fact, there's an entire organisation of people just like yourself who are willing to share your experiences.

Seek information in your own time once you feel ready to cope. Don't be afraid to ask questions, it is your right! New information develops daily. Never stop reading. Never stop learning.

Children with Down syndrome can and do grow up to live long, happy and fulfilled lives. Provided they are allowed the opportunities, they will develop self-help skills and independence. They can thrive well into their fifties and beyond, facing many of the challenges we all encounter. Many children are now being integrated successfully into mainstream schools. Many individuals with Down syndrome follow high profile careers in the world of acting, modelling, music, sport, computer technology and motivational speaking.

Allow your child the opportunity to develop to his full potential. Never ever let Down syndrome be the ceiling for your child's achievements. Although there might be delays in the learning process, aim high! Share his journey to independence with him and let him make you proud.

The birth of a baby is an exciting and happy time for the whole family. Rest assured that this occasion is no different. Your baby has the same needs and will require nurturing, care and love just like ALL babies. Never forget that your child is a baby first and has Down syndrome second. All our children bring much joy and love along with a measure of frustration and heartache, they teach us about patience and understanding and they love us unconditionally.

You have embarked on a journey. Enjoy and appreciate all the wonderful things this journey has to offer. May you and your family be blessed with the new arrival and may you find much love and happiness with your child – who just happens to have an extra chromosome.

**ENJOY YOUR BABY!**

# MEDICAL QUESTIONS

## What is Down syndrome?

Down syndrome is a genetic condition that is characterised by typical features. It is caused by an abnormality in the genetic material and it affects all races and all economic groups equally.

## Why do they think that our baby has Down syndrome?

Babies with Down syndrome do look slightly different from other babies and therefore they can usually be identified at birth. Some of the typical features include:

- eyes that slant upwards;
- tiny folds covering the inner corners of the eyes (epicanthic folds);
- small white flecks on the iris (Brush field spots);
- a small nose with a broad, flat bridge;
- a small mouth which makes the tongue appear large;
- small low set ears;
- a single crease on the palm of the hand (Palmar crease or Simian crease)
- short hands and fingers;
- inclining pinkie;
- wide gap between the big toe and second toe; and
- a slightly flattened appearance of the back of the head.
- Unusual looseness of the joints (hypermobile joints);
- Poor muscle tone (hypotonia) making the baby feel and appear “floppy”;
- Loose skin folds at the back of the neck;
- Heart defects occur in about 50% of cases;
- Eye defects occur in about 60% of cases;
- Hearing defects may occur and can affect speech and language
- Developmental delay (intellectual disability varies from mild to moderate).

Not all these traits mentioned are found in every child with Down syndrome. Like other children, children with Down syndrome resemble their parents, e.g. hair and eye colour but they also have some of the typical features of Down syndrome. Furthermore, each person with Down syndrome is a unique individual and can vary enormously in appearance, temperament and ability. It is also important to note that a person's appearance has nothing to do with his intellectual ability. Therefore, a person, who has more of these above-mentioned characteristics, is not necessarily more intellectually impaired.

Down syndrome is not diagnosed only on the basis of physical characteristics, it must be confirmed by means of a chromosome analysis. This is a special type of laboratory test performed on a sample of blood from the baby. Your doctor will be able to tell you more about this test.

### **Where does the name “Down syndrome” come from?**

Down syndrome is named after Dr Langdon Down, the physician who first described its features in 1866. The word “syndrome” means “a collection of signs and symptoms usually found in combination”.

### **What causes Down syndrome?**

Down syndrome is caused by extra genetic material. The genetic material is present in every human body cell and is arranged in tiny structures called chromosomes.

They are the building blocks, which give us our individual characteristics. For example, they determine the colour of our hair and our eyes and many other characteristics.

Each human body cell contains 23 pairs (46) of chromosomes, except the sex cells (egg cells of a woman and sperm of a man), which each contains only 23 chromosomes. Egg cells and sperm are formed by a special cell division process during which the chromosome pairs divide and only one chromosome of each pair is included in a sex cell. The egg cell and sperm therefore each receives only one copy of each chromosome pair.

During fertilisation a sperm of the father fuses with an egg cell of the mother. The fertilised egg cell then contains 23 pairs of chromosomes (46 in total). One chromosome of each pair comes from the father and the other one of each of the pairs from the mother. The fertilised egg cell divides rapidly in the womb and eventually the baby is formed. Each of the body cells of the baby also contains 23 pairs (46) chromosomes.

(See Figure 1)

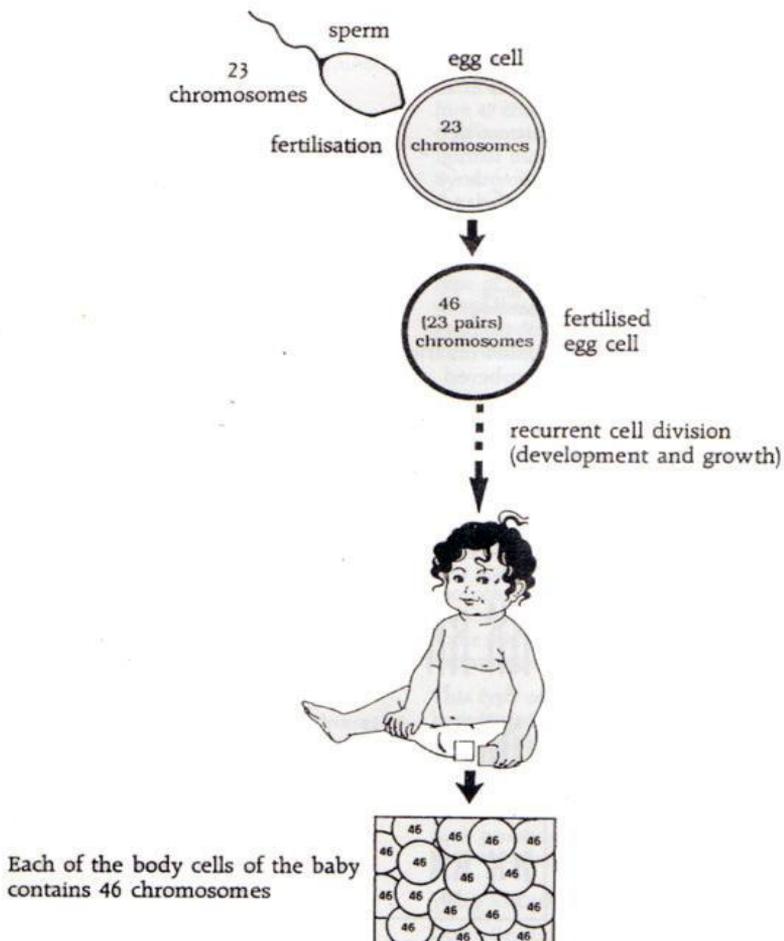
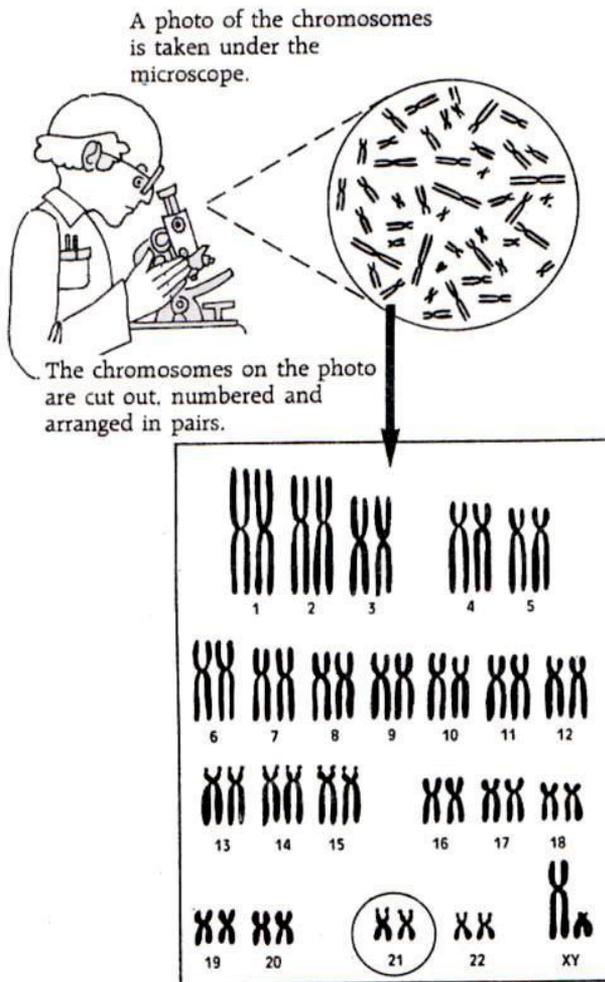


Figure 1: Fertilisation and the development of a baby.

When a blood sample of a baby is analysed in a laboratory, a photograph of the chromosomes is taken under a microscope. The chromosomes on the photo are then cut out, numbered and arranged according to pairs. Such a chromosome arrangement is called a karyotype.

*(See Figure 2)*



Note that the chromosomes are arranged and numbered according to a specific pattern, namely from large to small. One of the smallest chromosomes is numbered as number 21. It is the chromosome number 21 that is involved in the origin of Down syndrome.

It is important to understand that Down syndrome is not caused by anything the mother or father did or failed to do during the pregnancy.

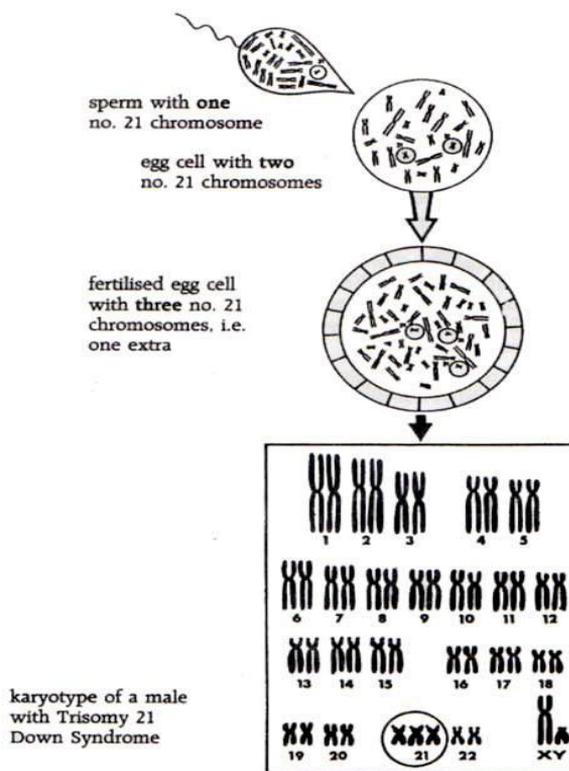
**Figure 2:** Karyotype of a normal male.

## There are three types of Down syndrome:

### Trisomy 21 type of Down syndrome

Trisomy 21 is the most common type of Down syndrome and is the cause of approximately 90-95% of all cases of Down syndrome. Trisomy 21-type of Down syndrome is not hereditary! In young mothers the chance of a second baby being born with Down syndrome is therefore very small.

Trisomy 21 (also known as non-disjunction type) occurs when the two number 21 chromosomes fail to separate and both instead of one, become incorporated into either the egg cell or the sperm. This cell then has 24 chromosomes instead of the normal 23. This phenomenon of the chromosome not separating is called non-disjunction.



With fertilisation, the sex cell of one of the parents (egg cell or sperm) with the two number 21 chromosomes (and therefore 24 chromosomes in total), fuses with the normal sex cell of the other parent (egg cell or sperm with 23 chromosomes) to form a fertilised egg cell with 47 chromosomes.

When this fertilised cell starts to divide, it eventually develops into a baby who has an extra number 21 chromosome in each body cell and hence Down syndrome.

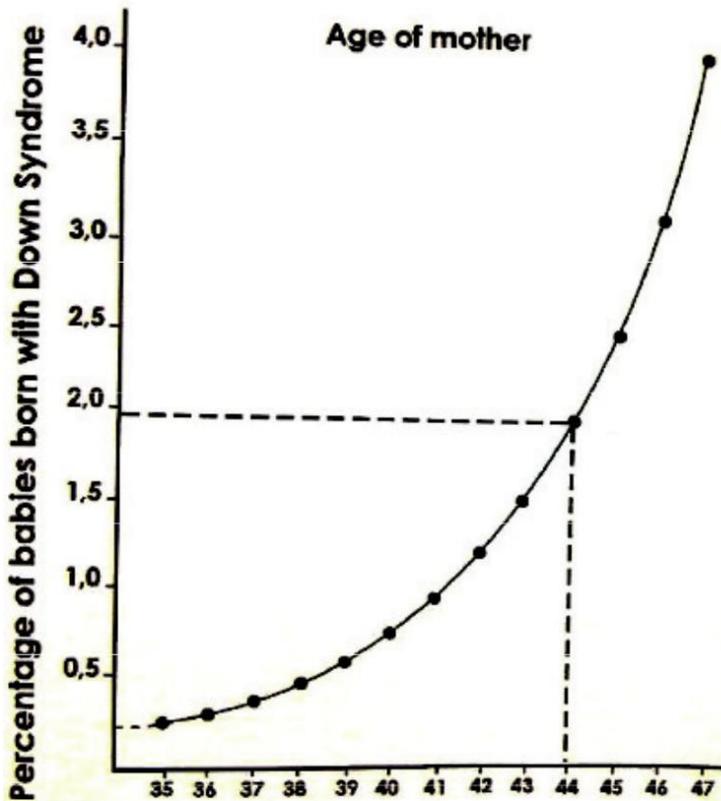
*(See Figure 3)*

**Figure 3:** Fertilisation of an egg cell with two no. 21 chromosomes by a normal sperm (with one no. 21 chromosome) results in the Trisomy 21 type of Down Syndrome.

**N.B. The opposite is also possible, where a normal egg cell (with one no. 21 chromosome) is fertilised by a sperm with two no. 21 chromosomes.**

Trisomy 21 may be caused by non-disjunction during the formation of either the egg cells of the mother or the sperm of the father. The chances of Trisomy 21 however seem to be increased in women in their late thirties and older.

(See Figure 4)



**Figure 4:** The mothers age and their risk of having a baby with Down syndrome. For example, the risk for a woman that is 44 years old, is approximately one in 50 (2%).

## The mosaic type of Down syndrome

This type of Down syndrome is very rare, not hereditary and the chance of a second baby born with it is small. Mosaic type is also known as Mosaicism. This is caused by non-disjunction of the chromosome pair number 21 shortly after fertilisation. The cells of the person with this type of Down syndrome have a mosaic pattern. The result is that some cells contain an extra chromosome number 21 (and therefore 47 chromosomes) while the other cells contain only 46 chromosomes (the normal number).

Such a baby may only show partial features of the condition. Some of these babies look less affected than other babies with Down syndrome, but not all of them do.

## The translocation type of Down syndrome

A baby sometimes has all the clinical symptoms of Down syndrome but only 46 chromosomes in every cell. With Translocation, the baby has a normal number of chromosomes but extra chromosomal material. In these cases, it is found that, over and above a normal pair number 21, these babies also have an extra part of a chromosome number 21, attached to another chromosome, which usually is chromosome number 14. This is called translocation type of Down syndrome.

This type of Down syndrome can be hereditary! Either parent can carry a translocation without showing any symptoms. In this case the risk to have another child with this type of Down syndrome for the parents concerned, or for other members of the family, can be quite high. It is strongly advised that a chromosome test is done on both parents and that they seek genetic counselling if they plan further pregnancies.

**IT IS IMPORTANT TO REMEMBER  
THAT THE TYPE OF DOWN SYNDROME THAT IS DIAGNOSED  
MAKES NO DIFFERENCE  
TO THE EVENTUAL DEVELOPMENT AND POTENTIAL OF THE CHILD.**

## Why did this happen to us?

Down syndrome can occur in any marriage, to people of all races and religions. It is not caused by food or medicine taken or by any other event e.g., an accident during pregnancy. Neither of the parents are to blame and therefore you have no cause to feel guilty or to blame your spouse. Try not to listen to superstitions and unlikely explanations given by well-intentioned people.

*“My husband left me soon after they told us Thabo had a genetic condition called Down syndrome. My husband said the ancestors were cross with me and were punishing me for something I did wrong. Today I know that is not true and that I did not do anything wrong!”*

**Eveline**

*“I thought that our daughter had Down syndrome because of the headache and pain tablets I took during my pregnancy. Little did I know then that Down syndrome arises at conception and that nothing I did during my pregnancy could have changed that happened on the day of conception. It took time for me to explain it to my extended family members and up to today some of them still think I am to blame.”*

**Tina**

*“My whole family blamed me for the thing which happened to us. They said I slept around with different men or that I laughed at a child with a disability and that is the reason why God is disappointed in me and decided to give me a child with a disability as well. It took me a long time before I found out the real reason why Rosinah, my daughter is different from other children.”*

**Maria**

*“In the beginning I kept on asking “Why has this happened”, and still today, do not know the complete answer to that. A doctor told me that it might be because Andrew was our third boy child, which of course is a myth and mistruth. What I do know is having Andrew, has enriched our lives in so many ways and I would never change what has happened for all the money in the world!”*

**Catherine**

## What are the chances of having another child with Down syndrome?

About one in every 600 babies born in developing countries and one in every 1000 born in developed countries has Down syndrome.

Any father's or mother's chances of having another child with Down syndrome is exactly the same as those of another father or mother the same age. The likelihood for any parents to have another child with Down syndrome would be exactly the same as any other parents of the same age unless the mother's age is 35 or older, when, according to research done, there is a slight increase in risk of having another baby with Down syndrome. The rise in the incidence of babies with Down syndrome in the case of older mothers is shown in Figure 4.

## Why does the risk of having a baby with Down syndrome increase with the mother's age?

The most likely explanation is the following: All the egg cells of a woman have already been formed when she was born as a little girl and these egg cells are found in an immature state in her ovaries (unlike men who produce new sperm from puberty onwards). In the case of women, after puberty only one egg cell matures each month and is released at ovulation. Therefore, by the time the woman is, for example, 38 years old, her egg cells are also 38 years old. Ageing is therefore likely to have had an effect on the egg cells and the way the chromosomes divide when egg cells are formed.

Today many older mothers have a prenatal test done to test for Down syndrome and other defects that can be detected before birth. Therefore, 80% of babies with Down syndrome are nowadays born to mothers younger than 35 years of age as women in this age group give birth to more babies overall and have had no reason to suspect that their babies would be affected.

## Can Down syndrome be prevented?

Down syndrome itself cannot be prevented by special medicine or medical intervention since it is caused by a change in the chromosomes. Neither can this change be reversed in an individual with the disorder. Down syndrome cannot be cured.

## Can Down syndrome be detected?

Down syndrome can be detected during pregnancy in the fetus (unborn baby). Before a prenatal test is done it is advised that both parents seek counselling. A genetic counsellor will be able to inform them about Down syndrome and the risk associated with the test. The counsellor will also be able to inform them of their specific risk of having a baby with Down syndrome.

A routine maternal blood screening to determine the risk of the baby to have Down syndrome can be performed at 15-20 weeks of pregnancy but detects only about 60% of all cases.

Another prenatal test is called an amniocentesis and is 98% accurate. This test is usually performed at the 15th or 16th week of pregnancy, but in certain cases it is done as early as 13 weeks or as late as 22 weeks. For this test, some of the amniotic fluid that surrounds the fetus (and in which cells shed by the fetus are found) are collected and sent to a laboratory for a chromosome analysis.

### **Amniocentesis involves a small but significant risk of miscarriage.**

For this reason, an amniocentesis is usually performed only if the mother is running a high risk of having a child with Down syndrome or any other genetic disorder that is detectable before birth. The result of the chromosome analysis after an amniocentesis may only be available after two to three weeks, since these cells must first be cultured (multiplied) before they can be analysed. In that time, it is wise for prospective parents to gather information about Down syndrome in order for them to make an informed choice.

Other tests such as the Chorionic Villi Sampling and Nuchal Translucency Ultra-sound can be performed earlier on during pregnancy but are not yet routinely used in our country.

If the result of any of these tests indicates that the baby might have Down syndrome, the parents are informed of this. They can then discuss the matter with their doctor or a genetic counsellor. The decision of whether to continue with the pregnancy or to have it terminated rests solely with the parents. The counsellor will, however, be able to give additional information on the genetic aspects and implications of having a child with Down syndrome, and to refer the couple to other sources for advice and help, if necessary.

## Should we go for genetic counselling?

The following people may be at a greater risk of having a child with Down syndrome and are advised to consult their family doctor, a specialist or a genetic counsellor:

- Women in their late thirties or older, who are pregnant or are planning to have a baby;
- Couples who have already had a child with Down syndrome; and
- Couples with a family history of Down syndrome.

## Where can we go for genetic counselling?

There are genetic counselling clinics in all the major centres of South Africa. Some of the universities and larger hospitals may have a Department of Human Genetics.

The Sub-directorate: Human Genetics of the National Department of Health, in collaboration with academic centres and the provinces, train health care providers on common genetic disorders including Down syndrome. The trained receive further genetic counselling. Health care providers should be able to advise you and arrange for you to a genetic counsellor.

## Is there a cure for Down syndrome?

Down syndrome cannot be cured! It is an irreversible condition. However, there is much you can do to help your baby develop the qualities and abilities he is born with to his maximum potential.

Professionals are encouraged to refer families for necessary tests as early as possible in order to detect complications (heart, hearing and eye defects), which can be treated to improve the quality of life of the baby with Down syndrome.

Early intervention and stimulation programmes have been developed to encourage the child to reach his full potential. It is very important to realise that children with Down syndrome are born with many qualities and abilities. It is up to the parents and caregivers to see that these are developed to the fullest.

Internationally many products namely Alternative Targeted Nutritional Interventions are on the market claiming to improve the function and even in some cases cure the condition and/or the intellectual disability of the person with Down syndrome.

**Down Syndrome International and The Down Syndrome Association Gauteng and Down Syndrome South Africa and all its affiliates do not recommend the use of any treatments or substances that have not been scientifically evaluated for both safety and effectiveness.**

At the time of publication of this booklet, none of the products currently marketed as Targeted Nutritional Interventions, or similar, in any country, have been shown to be either effective or safe. Although intensive international research is currently undertaken none of the products have been subjected to appropriate double-blind trials. Little is known about the side effects of these formulas and the levels of some ingredients could be dangerous, especially for infants and small children.

It is a natural response of parents to do whatever they can to better the quality of life of their children. Most of these products, however, are expensive and/or require intensive and time-consuming efforts from the family members.

As a family we want to encourage you therefore, to carefully weigh all the options, risks and implications for your family and make an informed choice when deciding on therapies and treatment for your child.

### **Does our baby have different needs?**

In the beginning, your baby will need to be cared for just as any other baby would, which means that he needs to be fed, changed, bathed, loved, played with, etc. Throughout his life, make sure that you treat your baby and child with Down syndrome like you would treat all your other children. Children with Down syndrome benefit from and prosper in a loving, caring family environment.

Your baby will tend to be slow to respond to you. However, you will find that if you cuddle and handle your baby regularly and lovingly, he will eventually respond and you will both benefit from the contact. When your baby grows up you will need to assist him in reaching his mile-stones. This is discussed later in this booklet under the developmental questions.

## Will our baby be healthy?

The health of babies in general differs from baby to baby.

However, babies with Down syndrome seem to have an increased risk of having some congenital abnormalities and developing certain medical problems.

Most of these are however either treatable or correctable.

- Vision problems are fairly common and an eye examination is recommended during the baby's first year. Consult your doctor immediately if your baby's eyes are sticky with thick mucus. However, if his eyes are only little sticky, a gentle swab twice daily with lukewarm boiled water will suffice. It is important to swab his eyes from nose outwards. Using each swab once only.
- Gastrointestinal abnormalities may be present at birth but can be dealt with through corrective surgery.
- A baby with Down syndrome has inefficient temperature control and does not respond well to changes in external heat.
- Therefore, keep your baby warm and well wrapped up in winter and cool in summer.
- Bath your baby daily but keep the water temperature moderate and do not leave him exposed for too long. When he is ill, a warm wipe down will suffice.
- When your baby gets older, he may push off the blankets at night. One solution to his problem is to let your baby sleep in a warm Babygro without blankets, or to make him a warm sleeping bag with a closed hem that fits him like a dressing gown. Keep him out of draughts and winds as this kind of exposure will affect his body temperature very quickly.
- As they get older, some children with Down syndrome tend to put on excess weight. Therefore, it is good to start early with a healthy, balanced diet – avoid too many sweets and refined starches in particular.

- No individual with Down syndrome will have all the health complications. However, every child needs good preventative medical care. With accurate diagnosis and appropriate interventions, most medical conditions can be easily managed. Teamwork between the family and doctors is vital to anticipate potential problems and provide specific and individual treatment should they occur.
- Families should remember that they have the right to ask a second and even a third opinion if they are not satisfied with the service of any professional working with their child.
- A regular and complete physical check-up every six months, by your doctor, is advisable for at least the first five years.
- Contact your nearest Down Syndrome Association for a complete medical checklist which includes growth charts, etc.

## SOCIAL AND EMOTIONAL QUESTIONS

### Whose advice should we listen to?

As with the birth of any baby, well-meaning people will offer you all sorts of different advice. This can be rather confusing. Listen to those who have personal experience in dealing with children and people with Down syndrome and who recognise the needs of your baby.

Do not hesitate to ask questions, as this will help you to move towards acceptance of your baby.

Your clinic sister and doctor and your local Down Syndrome Association will help you care for your baby's health and will bring you in touch with a parent group, early stimulation centre or social worker to help you cope. You have the right to choose the support you feel most comfortable with.

If you would like more information on, or further explanations of Down syndrome, you should feel free to contact your nearest Down Syndrome Association.

## How can we cope with our feelings?

There is, of course, no easy answer to this. You will need time to accept that your baby is different from others.

Remember that you are not alone. Many other parents have shared your shock, pain, anger, disappointment and bewilderment. Many have found within themselves unsuspected reserves of courage and faith to meet the challenge. Most parents benefit greatly in contacting other parents of a child with Down syndrome who share their interest and concern.

Each person reacts differently in a crisis situation. You will probably experience the following range of feelings at one stage or another; sorrow, rejection, grief, denial, disbelief, disappointment, anxiety, anger and guilt. These are all normal feelings and reactions.

Try not to plan your baby's future too far ahead. This is not practically possible with any baby. Live one day at a time and deal with each problem and stage as it arises. Try never to be so burdened with work or grief that you cannot enjoy the fact that your baby is a unique, wonderful little person with a great deal to share with you.

## How do we tell our family and friends about our child with Down syndrome?

Inform yourself as fully as you can about Down syndrome by reading and through discussion, but keep your explanations to your children, family and friends simple and straightforward. Tell everyone concerned as soon as possible. The longer you wait, the more difficult and awkward it will become.

An example of a simple explanation you could give to older family members and a friend is: "Our child has Down syndrome. It is a chromosomal disorder and he will be a child with a disability." You could tell your children about the baby in the following way: "He is a baby with Down syndrome. He will learn and develop much the same as any other baby, only slower. We will have to repeat things often to him and be patient.

Oh yes! The baby will smile, laugh and play and even be naughty sometimes. In the meantime, we can love our new baby and play with him a lot."

Always remember that people tend to take your behaviour, reactions and attitudes as an indication of how they should react to you. Using the correct terminology will be showing that you value your child. A child is not a “Down’s child” or a “Downsie” or a “Down syndrome”, but is first and foremost a child, boy, girl, teenager, etc. and secondly who happens to have Down syndrome. Therefore, you can set the example to your family and friends in using person first terminology. Speaking about a child / boy / girl / with Down syndrome is a good habit which does not give labels to people.

Understand that many people may feel awkward about speaking to you and will sometimes be clumsy in what they say. Sometimes you may have to correct them gently. Speak openly about your child and your friends will feel more and more at ease with the situation. You may even derive support from asking a friend to accompany you on your first outing with the baby. Give your family and friends the opportunity to hold your baby and play with him or ask them to baby-sit for you if necessary. It may even help to give this booklet or other literature to your friends and family to read. Grandparents are often just as distressed as you are and may try to help by making suggestions that you interpret as negative. Communication and time will help to sort out all the problems. Your children, family and friends will mostly reflect your own attitude. If you cope with the situation effectively, most other people will too.

### **Will this baby put a strain on our marriage?**

The birth of a baby with Down syndrome may cause crisis situations in a family, but then any baby can put a strain on a marriage. Research has shown that marital difficulties experienced by parents of children with Down syndrome are more than those experienced by the rest of the population. In fact, when asked about the effect of having a child with Down syndrome had in the family, parents often say it has brought them closer together.

Never hesitate to seek professional help if you feel unable to handle your specific situation. A balanced, happy family life should always be your ultimate, overall goal, with a reasonable amount of time being devoted to each member of the family. A united, loving family can provide the strength you need. Private time for you and your spouse should definitely be set aside. Your marriage will benefit from a lot of time and consideration for one another.

**Your marriage is the foundation for the quality of life of your whole family!**

Where possible, parents and children's daily routine need not be unduly disrupted by the birth of a baby. Your baby should adjust to your way of life; this should not happen the other way around. A child with Down syndrome can also participate and contribute to family life. Reports vary, naturally, but living with a child with Down syndrome is not all "give" and no "take" for parents.

The amount of time spent stimulating a baby with Down syndrome depends entirely on each family's overall situation. If exercises and games can be included in your daily routine this is preferable. However, it is important that you play and communicate as much with this baby as you would with any other baby. The rewards and satisfaction of raising a child with Down syndrome and the sense of positive achievement gained are perhaps greater than with other children. All goals are relative after all.

You and your family may find that counselling and extra support can help you to cope with your particular situation. In this regard, you will greatly benefit by contacting professionals e.g., a social worker and especially parent groups. Their advice can help you to maintain a balance and ensure that you are not neglecting your children, family and friends.

### **Will having a child with Down syndrome impact negatively on our other children?**

It is of the utmost importance not to neglect your other children or your marriage partner, since maintenance of the family unit is of vital importance to all, including your child with Down syndrome. Parents should never feel obligated to devote all their spare time to their child with Down syndrome.

Research has shown that in the majority of cases having a brother or a sister with Down syndrome does not impact negatively on a child. Children usually accept disability more easily than adults and can only benefit by developing a sensitive approach to life and people. Any hardship they may have to endure as a result of having a brother or sister with a disability can help them to mature and to face life being better equipped. As the siblings of a child with Down syndrome get older (about 10 years) they tend to need more factual answers and usually like to be involved in decisions about the child with Down syndrome.

***A doctor once sympathised with me that my brother had Down syndrome. I corrected him in saying that he shouldn't be sorry, as I thought it is OK and even cool. He is after all my brother!***  
**Christopher**

# DEVELOPMENTAL QUESTIONS

## Introduction

Your baby has Down syndrome. Just like all other babies he can't walk, talk or feed himself yet.

The fact is, when he is older, he should be able to do all those things providing he gets the support he needs.

With the proper support he has a good chance to learn to read and write, go to a mainstream school, establish friendships, pursue interests, get a job and live a semi-independent adult life.

## How will our child grow and develop?

Every child grows and learns. Whether a child has Down syndrome or not, children vary in their rate of development. Children with Down syndrome usually follow the same pattern of skills development, while perhaps taking longer to achieve a skill.

The process of development is divided into: gross motor, fine motor, language, cognitive, social and self-help skills. All these areas are linked to one another and progress in one area affects progress in others. Factors such as muscle tone and general health may affect the rate of skills development.

The average height of a child with Down syndrome is less than that of the rest of the population. A controlled diet and regular exercise prevent any excessive weight gain. Their bodies mature in the same way however, and they too will reach puberty in their early teens. People with Down syndrome can continue to develop physical and mental skills as they grow, benefiting from all life experiences as well as their inner abilities.

People with Down syndrome can gain physical and mental skills throughout their lives. The level of skills in children and adults vary considerably between individuals, but the average rate of progress is slower than in ordinary people.

## How can we care for and stimulate our child?

Stimulation is very important in the development of our babies. It simply means encouraging your baby to become aware of you, the rest of your family, his surroundings and the day-to-day household happenings.

You, as the parents, are usually in the best position to care for and stimulate your child, especially if you are willing to accept assistance in developing your parental skills.

Learning for the baby begins as soon as he is born. Our babies tend to be quieter and cry less than other babies. It is important not to leave him alone in his cot, staring at a featureless ceiling. When he is awake, he needs exercise for his body and mind. Make his surroundings bright, colourful, mobile and sometimes even noisy. Encourage eye contact by talking and singing to the baby during feeding, playing and any interaction.

As new parents of a child with special needs, there are a number of services available to assist your child in his development. Early stimulation (early intervention) is a good start to planned assistance for your child. These programmes could include the services of speech therapists, physiotherapists and occupational therapists.

### General rules that apply to all stimulation or early intervention programmes are:

- **Readiness:** Look for signs of readiness, e.g., the baby who holds toys and puts them in his mouth can be given a baby rusk to hold and chew on.
- **Repetition:** Whatever you're trying to teach your child will have to be repeated several times before he grasps what is expected of him.
- **Praise:** Be generous with your praise, especially when your baby really deserves it.

The exercises are only meant as a general guide.

If your child only uses the exercises in this book, it would help a great deal if his progress is assessed every three to six months by a professional working in the area of early stimulation (e.g., speech, occupational and physiotherapists).

## You will be able to get practical guidance in the form of:

- A few basic exercises;
- Some toys to use constructively;
- Some games to play, with clear instructions;
- Feeding, dressing and general care tips; and
- Guidelines on how to detect any secondary disability.

## How can we develop our baby's gross motor skills?

It is advisable to follow a home programme or to contact a physiotherapist who specialises in Down syndrome. If this is not possible, here are some general guidelines of the main principles of development in this area:

Begin with head control, proceed down the back and to the legs, from the midline outwards. Generally, progress from the larger to the smaller body parts (e.g., arms to fingers).

### Head control:

- Your baby needs to lie down on in different positions (on his back, stomach and sides) during the course of the day.
- When your baby lies on his stomach he may object, but these objections take the form of movements that are ultimately beneficial. When the baby is in this position the surface under him must be smooth and firm. If the baby lies limply, tickle him with your fingers or, if he is naked after bath time, stroke his whole body with a soft hairbrush. Ask to be shown the correct method of doing this by the person providing the early intervention. This is good for sensory stimulation (from birth).
- Lay your baby on his back on your knees or on a smooth surface. Take him by the shoulders and raise him gently until the weight of his head can be felt. At first his head will hang limply and the lifting will have to be slow and limited. After a few days some tension will begin to show in the neck muscles and he should gradually begin to lift his head. As soon as he does this he should be laid back for a rest after which the exercise should be repeated twice more. This exercise should also be varied by holding your baby slightly to the side and getting him to lift from this position as well (from 6 weeks).

- When carrying your baby, hold him against you, facing away from you so that he must lift his head and maintain that position to see things (from 6 weeks).
- Sit your baby in front of you, holding him by his shoulders. Tilt him from side to side, back and forth and in various directions to encourage head control. As your baby's neck becomes stronger, you can rock him in different positions. You should deliberately support his head less as he grows older and stronger (from 8 weeks).
- Place your baby in the middle of the room on his stomach. Walk past and around him so that he must lift his head to see you (from 6-8 weeks).
- Lay your baby on his stomach propped up on his forearms. Introduce a toy within his field of vision and say, "look Peter", as you begin squeaking and moving the toy. Gradually raise the toy so that he will have to follow it with his eyes and lift his head. Vary the objects and give plenty of praise and reward (from 8 weeks – 3 months).
- Place a rolled towel or blanket under his chest for support, if necessary. Remove this as he becomes stronger.
- Place you baby on his stomach on a large, slightly deflated beach ball. Support him securely under his arms or at his waist and roll him gently from side to side and back and forth. A friend or family member can hold a toy in front of him to encourage him to raise his head and watch and move (from 8 weeks – 3 months).

### Rolling:

- Place your baby in side lying (i.e., lying on his side), by introducing an interesting toy at his eye level, encourage your baby to turn over onto his back and then turn back to side lying again. Move the toy in the direction you wish him to turn towards and use your voice to encourage the baby to follow it.

You can assist his rolling by physically taking hold of and gently bending forward his "opposite" knee and lower leg to "roll" across and in front of his other leg. Once his leg and hip are in position, he will eagerly try to move and turn over towards the toy (4-6 months).

- Lay your baby on a blanket on his stomach, and then use the blanket to roll him onto his back. He must push up from the forearm with his fingers open (his hands must not be clenched). Gradually lift up one end of the blanket, thus, prompting him to roll over in a continuous movement.

Prompt him through the entire roll from his stomach to his back. At the beginning you must support the back of the head so that he does not bump it when he rolls over (from 4-6 months).

### **Leg exercises: (best to do these exercises when you change your baby's nappy)**

- Lay your baby on his back. Lift his feet one by one, raising them about two inches (6cm) and letting them drop gently onto the changing towel. The aim of this exercise is to get the child to make conscious movements in response to his experiences. Four times will suffice and as he grows stronger you may raise his feet higher before letting them drop, so that he gains practice in control (from birth).
- Hold your baby's foot around the ankle, using your thumb and forefinger. Tickle the sole of his foot from toe to heel. As his foot draws back resist the movement by keeping your hand still. Exercise both legs (from birth).

### **Sitting:**

- Attempt to place your baby in a sitting position. This position allows more scope for movement and play and allows him to see well in three directions.
- As soon as his head control begins to improve, a baby reclining chair will be necessary. There are various types available on the market, including bouncer recliners, these are also support recliners that are used in the bath than can be padded with a towel or blanket (use from 4 months).
- Your baby can be propped up in his pram or in a corner of a lounge chair with cushions at his sides and something up against his feet to stop him from sliding down. He can begin by sitting for short periods at a time. As his neck and back muscles get stronger, the sitting time should be increased. Small babies sometimes need a little extra support at the side of their heads. Use folded nappies or a pram cushion (from 5 months).

- Put your baby in a reclining position inside the pram or pushchair with the canopy attached. Toys can be hung from the canopy for him to focus on and reach for. Toys that make a sound are useful. Household articles can also be used. It is important to think of hanging a variety of different objects, rotating these so that you give the baby something different to look at from time to time. Variety and not the cost of the item is important (from 3-4 months).
- To encourage your baby to kick, thread a few jingle bells (obtainable from craft shops) onto a piece of elastic long enough to make a band to fit around the baby's ankle, so that when he moves his feet, he will hear the jingle bells. If he is reclining, he will also see the shiny and colourful jingle bells and also encourage him to reach towards them.
- Once your baby has good head control and his back is stronger, take a large blow-up swimming tube, sit him inside it with his hands resting on the tube and his feet pushing against it. The tube will also break his fall if he topples over.

## How can we develop our baby's fine motor skills?

### The main principles of development in this area are:

- Co-ordination between the eyes and hands leading to planned movements, controlled by vision.
- Progress from using both hands to using one hand.
- Palmar.

### Eye-muscle control and eye movement:

- Hang large, bright pictures around the crib, e.g., pages from magazines, wrapping paper, aluminium foil balls and calendar pictures. Change frequently to avoid boredom.
- Hang mobiles over the cot and/or pram. Bought ones with music are superb, but light ones that move in the breeze are just as effective. The first mobile can also be changed from time to time by using pieces of aluminium foil, tinsel and coloured paper.

- Introduce a bright, noisy object, e.g., rattle in the baby's line of vision and move it slowly from side to side. First his eyes should follow the toy and then he should begin turning his head to follow it. At first you may need to physically turn your baby's head with your hand to introduce the idea. Praise him for turning his head and wiggle the toy for the reward. When this has been mastered, move the toy up and down as well.
- Encourage personal eye contact with your baby. Encourage him to look at your face and your eyes and to respond to your voice.

### Reaching and grasping:

- Hang mobiles, toys, etc. with easy reach.
- Hold out a toy in front of your baby's hand. Physically help him to reach for the toy and then help him to grasp it. Change such toys frequently – It is important to use a variety of toys e.g., different sizes, colours, shapes, weights and textures. Many areas have toy libraries where a large variety of toys can be borrowed for a small fee.
- Take your baby's hands, place them on your face and hair. Blow into the palms of his hands gently kiss and nibble the skin of his hands.
- Starting from his fingertips and moving upwards, stroke the back of his hands, to encourage him to open his hands.
- Let your baby play with one toy to begin with and teach him to hold one toy with both hands. Then give him two similar rattles to hold in each hand and teach him to bang them together.

Encourage your baby to hold his own feeding bottle. You will initially have to prop his hands in position and support the weight of the bottle. As he becomes stronger, you can reduce the level of support (amount of help).

- Toys attached (with suckers or elastic bands) to the tray of a high chair are also useful.

## How can we develop our baby's social and self-help skills?

### The main principles of development in this area are:

- Progress from total dependence to increasing independence in daily physical routines.
- An awareness of his own body and its actions.
- Satisfaction of his basic social needs.

## EMOTIONAL AND SOCIAL NEEDS

- A sense of security is vital for your baby's emotional development and physical contact is the key to its development. Cuddle and handle him firmly and lovingly. Encourage members of the family to handle and talk to the baby. Feeding and bath times should be pleasant occasions.
- During the first few weeks your baby may show very little response, but it is very important that you maintain the habit of talking to and smiling at him. Regular encouragement in the form of a smile and praise whenever the baby makes a useful movement will encourage repetition.
- When your baby is awake, place your baby near you, especially when the family is doing something together, such as meal times or watching TV. Do not leave him lying in his cot during these times.
- Encourage your baby to respond to you, e.g., by lifting an arm when you want to pick him up.
- Mirrors are the best toys for showing your baby his own image and how his face changes when he smiles. Call him by his name.
- Play games with your baby like "Peek-a-boo", "Clap hands" – the baby holds onto your small finger while you clap, "Body parts" – "Where is Jimmy's nose?" Tickle his nose.
- Make sure that you take your baby out with you.

## FEEDING

Hunger is one of the first experiences your baby has outside the warmth and comfort of the womb. When you satisfy his hunger (by breast or bottle feeding), your baby knows that to be in his mother's arms is all he needs to be at peace with the world. You are establishing a relationship of trust and love that will affect his whole life. The physical contact between mother and baby ensures eye-to-eye and eye-to-mouth concentration on the part of the baby. This is now regarded as an important first step in communication.

Mothers are encouraged to try to breastfeed. Successful breastfeeding does require patience. You may want to seek help from your doctor, clinic, La Leche League or Breastfeeding Association. The young baby's sucking and swallowing ability may be poorly developed but will improve steadily. Do not lose courage and remember that breastfeeding is the healthiest start you can give your baby in life. Remember that whatever you eat or drink can affect your baby; thus, stay with healthy food. Drink fluids regularly, especially water, and try to stay relaxed and calm.

The La Leche League is an international organisation and has pamphlets available on the breastfeeding of babies with Down syndrome. If you cannot manage breastfeeding, bottle feeding is a good substitute. Experiment with different sizes and types of teats. Instead, some teats are made to allow milk to flow faster or slower. If you are unable to buy one of these teats, then cut a very small cross over the existing hole of the teat using a small, sharp knife. Keep the baby upright when you are feeding him because food can be inhaled into the lungs in small quantities, which could lead to later infections. This can also happen if the baby vomits. Do not lay him down until you are certain that he has broken most of his wind. Lying him down on his stomach often helps. If your baby forms a seal with his lips and tongue around the teat, twist the bottle and break the seal at intervals.

Because your baby's sucking ability may be weak initially, it may be necessary to persevere longer than usual to feed him. The child with Down syndrome will often have to be woken for his night feeds. This is very important to keep blood sugar levels up. He may not wake and cry like other babies. Plan these feeding sessions carefully as a mother's sleep is also very important.

Keep a good check on his weight to see that he is getting sufficient food in the early weeks. For more help and advice regarding feeding and weight concerns, you should consult your doctor.

A speech therapist and dietician will also be able to provide you with practical advice.

Once your baby is one year old, you can start weaning him from the bottle. Introduce a cup to your child and you may need to experiment with different cups: plastic or feeding cups are most commonly used. Begin with small amounts of milk in the cup. Begin with small amounts in the cup. A cup with a straw is good for the child to use, as the suckling action will help to strengthen the muscles in and around the mouth. When your baby starts eating solids, then that is the time to give him the 250ml boxes of fruit juices. You can gently squeeze the box so that the fruit juice is pushed up the straw. This will allow the baby to taste the juice and will encourage him to suck on the straw. Don't mistake a tongue-thrusting action for rejection. This often continues for longer in a baby with Down syndrome.

Start to wean your baby onto solids as you would for any baby. The nursing sisters at the baby clinics will advise you when to start. Your baby should be encouraged to chew before he turns one year old. If put off too long, the baby might fear choking and then it will be very difficult to wean him to solids.

By the age of two, most babies should be able to manage eating and drinking by themselves fairly competently. Breastfed babies should be encouraged to drink from a cup so that a variety of liquids can be added to their diet. They usually do not take to having a teat or a variety of liquids in their mouths easily.

Spoon-feeding can usually be introduced at three months. Try to avoid sweet tasting foods. Once porridge, fruit and vegetables have been introduced, try to offer him a variety in order to avoid later fussiness. Once your baby can swallow very smooth foods, introduce more textured food, e.g., vegetables mashed with a fork.

An inability to retain food is quite common, as is erratic weight gain. However, if there are any signs of dehydration, failure to thrive or any persistent tendency to regurgitate semi-solids, you should contact your doctor immediately, as in some cases intestinal blockages may be present.

Dietary supplements may be introduced at a fairly early age. The dosage should always be in accordance with the specific preparation instructions. Always consult your doctor or a dietician first before using any supplements. The dosage should always be in accordance with the specific preparation instructions.

Allergies to milk are very common. However, by the age of two, these feeding problems are usually much less. It is often noted that the bowel functions of children with Down syndrome are abnormal, although this can be unduly exaggerated.

However, irregular bowel movements do sometimes occur and, if persistent, should be mentioned to your doctor. If your baby does not pass stools easily, it could help to handle him more often, and so strengthen his stomach muscles. Increase his general activity or consult your clinic for dietary changes. Remember that breast-fed babies do not have daily stools.

## TEETHING

There is often an irregular pattern of teething. The first tooth should appear between 5 to 21 months (on average at 15 months). Use standard analgesic gels for teething problems.

During the first few month's sodium or calcium fluoride, dissolved in water or milk, can be given to promote healthy teeth formation in your baby, especially if there is a deficiency of these substances in the local water supply. These substances are added to certain milk formulas. Check with your doctor or dietician before adding it to your baby's diet.

## HOW CAN WE DEVELOP OUR BABY'S COMMUNICATION SKILLS?

**The main principle of development in this area is:**

- Hearing sounds and making speech sounds.
- Ear infections are common in children who have Down syndrome, and recurring ear infections may affect the child's hearing and this will affect their speech and language development. All babies and children should have hearing tests done to make sure they are able to hear as clearly as possible.
- Expose your baby to a variety of sounds, e.g., talking, music, bells, rattles and whistles, and brings his attention to the source of the sound. Don't bombard your baby with noise constantly. A daily variety of sound is what is needed.

- Repeat the sounds he makes to encourage him.
- When calling your baby, use his name. Call him from different directions.
- On the whole, babies with Down syndrome do not cry much, but, as with all babies, crying is one of their first ways of communicating. Babies cry for a reason, such as hunger, pain or discomfort.

Prolonged crying is not good for any baby. By responding to his cries, you are teaching him that when he cries, you will respond by either feeding him, comforting him or changing his nappy etc. Later, he will be able to alter his cries and urgency of his cries.

- Encourage your baby to make sounds. Take his hands and allow him to feel your lips move while you say “wa-wa-wa-wa”. When your baby makes a sound, put his hand against his lips so that he can feel where the sound is coming from.
- Work on imitation of sounds, especially those that require movement of the lips and tongue, such as da-da-da-da-, ba-ba-ba-ba, ta-ta-ta-ta, wa-wa-wa-wa and ma-ma-ma-ma. Hold your baby so that he can watch your mouth. Copy his sounds, pause for him to reply and copy him again. When this game is established you can begin to introduce one new sound at a time and encourage him to imitate you.
- A child with Down syndrome needs to hear the same words over and over again in order to learn to repeat them. He will love hearing you talking to him.
- Tickle him and teach him to laugh.
- When speaking to your baby, speak clearly with short sentences. Don’t use baby language, use the right word for the right meaning, e.g., “Mummy is going to bath Kim. Feel the water. It is warm. We’ll rub soap on your body”.
- As you dress or feed your child, explain clearly what you are doing. Some-times you can repeat key words like “water” and “warm” and specific body parts such as “arm” and “foot”. Remember repetition makes learning easier for children with Down syndrome.
- Teach your baby to wave goodbye and say “bye-bye” or “ta-ta” or to blow a kiss.

- Teach you baby to copy actions, say “no” and shake your head at the same time. Your baby will learn to copy you and will learn to shake his head at the word “no”. In the same way, when you say “yes”, nod your head, and your baby will learn to do the same.
- Babies and toddlers usually love looking at themselves in the mirror. They can keep themselves entertained this way. You can use the mirror to name and point to parts of their body e.g. “Can you see your nose? Where is it? There it is!” Babies may also “talk” to the image in the mirror.
- Be consistent with the words you use, e.g., “dog” must not sometimes be “doggie”.
- Respond to your baby’s attempts to communicate.
- Later he may use more gestures, e.g., he will lift his arms towards you when he wants to be picked up and carried or he will point to the fridge when he wants a drink. You will guess what he wants, but instead of just silently doing what he asks, say the request back to him and put these into words, e.g. “Do you want some juice?” or “Must I pick you up?”

It is very easy to fall into the habit of being silent when your child uses gestures to communicate. But it is so important that you resist doing this, as you want to encourage him to use speech at every opportunity.

- Remember that he will be able to understand words and sentences before he can say them. Therefore, it is very important to talk to him a lot even before he is talking himself. When he is older, then you should expect your child to speak some words before reacting to his gestures.
- Prompt him to start talking in order to lower his frustration level.
- Research has shown that teaching a child with Down syndrome to read improves the vocabulary of the child and has a positive influence on speaking. You can start to teach your child to read with the use of flash cards when he is as young as 2-3 years old. Flash cards are ordinary pieces of paper or card-board with one-word i.e., the name of an item, written on it. These cards would be attached to the items around the house or pasted in a book next to pictures of the items.

- The written word must always be accompanied by the spoken word. Try to use full sentences when you talk to your child with Down syndrome.
- Most children with Down syndrome will have delays in their language and speech development and will need to see a speech therapist. The development of your child's communication skills should be seen as a ability that has to be practised over and over again until it becomes better and easier to do. Set your expectations high in what you want for your child to achieve and use words that you want your child to be able to speak back to you.

## IS DISCIPLINE REALLY IMPORTANT?

Routine and discipline applied consistently are essential for the upbringing of all children as it adds to their feeling of security and helps with the development of self-discipline.

However, as children get older routine needs to be altered occasionally so that they can adapt to change.

All children, including children with disabilities, need discipline. Children with Down syndrome however, will need more time and help as well as more frequent reminders to learn. A busy, happy child is usually a well-behaved child. Teach him right from wrong.

Keep your instructions simple and be consistent. Do not be afraid to set standards for his behaviour.

People with Down syndrome can learn and therefore inappropriate behaviour should not be accepted. To be accepted into society he must also abide by certain rules.

Tell him what to do rather than what not to do. Say "hold the rattle" rather than "Don't throw the rattle".

### Teach by example –

- Show him what to do.
- Practice with him the things you want him to do.

- Be consistent in your instructions and expectations and use short, simple sentences.
- Tell him when he is behaving well or being quiet and gentle and praise him for this.
- Correction should be immediate, if possible, and without anger. Do not threaten, Scold or nag.

Disciplining your child is a personal matter but, some methods of discipline cause permanent damage.

A change in the tone of your voice will usually work well enough.

## WILL OUR CHILD BE ABLE TO GO TO SCHOOL?

Children with Down syndrome benefit from the same community programmes as other children do, such as play groups, nursery school classes, swimming and music lessons, story times at the library, dance classes and other social activities.

Children learn to work with peers, make friends and enemies, get into trouble and learn to take responsibility for their behaviour.

Once the child has reached the age of seven, schooling is compulsory. The latest Education Legislation makes provision for learners with disabilities to be accommodated in the mainstream.

Therefore, it is nowadays generally accepted that when children with Down syndrome, when are given the proper support such as curriculum adaptation (if needed), they can attend regular schools.

International research has proven time and time again, that children with Down syndrome benefit more from the normal school environment (than from special schools), and that they can make much better progress than has previously been expected.

## DO WE HAVE TO MAKE SPECIAL FINANCIAL PROVISION FOR OUR CHILD WITH DOWN SYNDROME?

This is something that many parents are worried about. Parents, in general, plan for all their children to go to school, and further education e.g., university, etc. In the same way, you should also plan for your child with Down syndrome as he might need to be trained for a job that he would like to do. Future care of him when you are no longer around also needs to be planned. Ultimately, he would also like to leave home and live semi-independently.

As you make plans for your child, it would be wise to make financial provision through establishing a trust, a planned savings programme or suitable insurance policies or even a combination of these options.

## DO WE RECEIVE ANY FINANCIAL SUPPORT FROM THE GOVERNMENT?

The government provides two types of grants for children: Child Support Grant and Care Dependency Grant.

### Child Support Grant

Child Support Grant may be given to a person who takes care of a child under the age of 18 years.

### Care Dependency Grant

The Care Dependency Grant is given to a parent, primary caregiver or foster parent to take care of a child, (up to 18), who is severely disabled or is in need of full-time and special care.

If you want to apply for any of these grants, the government asks you to prove that you really need the money (Note: this does not apply to foster parents).

**Contact your nearest Down Syndrome Association for more details, or contact SASSA on 0800 601 011 or [www.sassa.gov.za](http://www.sassa.gov.za)**

## WHAT ABOUT MARRIAGE AND SEXUAL RELATIONSHIPS FOR OUR CHILD?

There are many misconceptions about the sexuality of people with intellectual disability. In general, people with intellectual disability have the same feelings as you and I, but they need guidance in expressing their sexuality. A young woman with Down syndrome is fertile and there is the possibility that she could have children. However, the intellectual disability means that she will not be able to care responsibly for the infant, and there is also the likelihood that the baby will also have Down syndrome. Her caregivers will recognise the time when she needs to have counselling and guidance for this, and appropriate birth control measures must be provided.

Most women with Down syndrome are therefore given the option of some sort of birth control. Intrusive surgical methods such as a sterilisation and hysterectomy need not be an option. According to the Sterilisation Act, these procedures can only be done once the person with the disability is 18 years or older, for medical and life-threatening reasons and always with the consent of the person with the disability.

Research has shown that men with Down syndrome have a low sperm count. However, there have been more than one recorded instance of men with Down syndrome having fathered a child.

Through understanding and sympathetic counselling young people with Down syndrome can learn to understand their own sexual development and enjoy meaningful relationships with the opposite sex.

For some individuals marriage can be a realistic goal and certainly a right. Sharing one's life with another person in a loving relationship or enjoying a deep, caring friendship are needs which must be recognised and respected.

A flexible and understanding approach on the part of families will help young adults with Down syndrome to live their adult life in such a way that they achieve maximum independence with dignity.

## WHAT ARE OUR CHILD'S PROSPECTS FOR THE FUTURE?

It is not possible to predict with any accuracy what your child's future prospects are.

The range of functional abilities amongst individual children with Down syndrome is very wide (as it is with non-disabled children). Tests conducted at an early age may not give a reliable indication of your child's future developmental progress.

The development of your child with Down syndrome is not determined by the type of Down syndrome that he / she has nor by the number of physical characteristics that are visible. A common mistake made in the past was that too little was expected of children with Down syndrome, so aim high and provide him / her with as much stimulation for his / her development as he / she can comfortably tolerate. As new parents your biggest challenge will be to provide your child with Down syndrome with appropriate early intervention (from birth) and also to give special attention to ensure disciplined and socially accepted behaviour.

The child with Down syndrome who is accepted with his disability, who is not overprotected, and who is given the opportunity to develop his potential, then this is the child who will be able to adapt successfully to society, to attend school, make friends, find work, participate in decisions which affect him and make a positive contribution to society. People with Down syndrome have the same emotions and needs as any other person and they deserve the same opportunities and care.

## CONCLUSION

It is hoped this booklet will have answered many of your questions.

As time goes by you will find that your situation is not as unmanageable as it may appear to you right now.

This booklet has been compiled based on the questions commonly asked by many new parents.

If you have any additional questions, the expertise of both professionals and other parents will be of great help to you.

# DOWN SYNDROME AWARENESS DAYS

## World Down Syndrome Day (WDSO)

The date for WDSO being the 21st day of the 3rd month (21 March), was selected to signify the uniqueness of the triplication (trisomy) of the 21st chromosome which causes Down syndrome. WDSO was first observed in 2006 in many countries around the world.

On 19 December 2011, the United Nations General Assembly declared 21 March as World Down Syndrome Day. The General Assembly decided to “designate 21 March as World Down Syndrome Day, to be observed every year beginning in 2012”.

## National Down Syndrome Day

National Down Syndrome Awareness Day falls on the 20th October each year. With Down syndrome being a Genetic condition, we aim to create awareness around Down syndrome and promote the abilities of people with the condition.

## THINK OF ME FIRST AS A PERSON

*You look at me first with pity, concern or indifference,  
For I am a disabled child  
But you see only the outside of me.  
If I could express myself,  
I would tell you that I am inside  
I am very much like you!  
Think of me first as a person,  
Who hurts and loves and feels joy.*

*And know I am a child to encourage and direct.  
Smile and say hello.  
Even that is enough.*