



**Great Ormond Street Hospital for Children NHS Foundation Trust** 

This leaflet explains about haemangiomas and what to expect when your child comes to Great Ormond Street Hospital (GOSH) for treatment. Although this leaflet focuses on the problems haemangiomas can develop, it is always important to remember that 80 per cent of haemangiomas do not develop any problems at all, and in those that do, the problems may not be severe.

## What is a haemangioma?

A haemangioma is a collection of small blood vessels that form a lump under the skin. They are sometimes called 'strawberry marks' because the surface of a haemangioma may look a bit like the surface of a strawberry.

Haemangiomas can be superficial or deep. Some haemangiomas are a combination of the superficial and deep kinds, with a raised, red area on the surface of the skin, and a bluish swelling of abnormal blood vessels deeper in the skin.

### What causes haemangiomas?

The cause of haemangiomas is not fully known. there is some evidence to suggest that a proportion may arise from placental tissue very early in pregnancy.

# How common are haemangiomas?

About one in every ten babies has a haemangioma. They are more common in girls, in premature babies, low birth weight babies and multiple births,

such as twins, triplets and quadruplets. Haemangiomas are not inherited, but because they are quite common, families often report another relative who has had a haemangioma in childhood.

# What do haemangiomas look like?

Superficial haemangiomas are usually a raised, bright red area of skin, which feels quite warm because the abnormal blood vessels are close



Superficial haemangioma

to the surface. A superficial haemangioma may appear initially as a small area of pale skin on which a red spot develops.

Deep haemangiomas may appear bluish in colour because the abnormal blood vessels are deeper in the skin. Sometimes they are not noticeable for the first few weeks, only appearing as a lump as the haemangioma grows; this is particularly true if the surface of the skin is not affected.



Haemangiomas are not usually present at birth but develop a few days or weeks later. They often grow rapidly in the first three months. It is unusual for haemangiomas to grow after six to ten months of age, when most haemangiomas tend to have a 'rest period' and then begin to shrink.

# Where do haemangiomas occur?

Most children only develop one haemangioma, but occasionally, a child has multiple haemangiomas in various parts of the body. This seems to happen most often in twins or other multiple births.

Haemangiomas can appear anywhere on the body. The majority of haemangiomas appear on the head or neck, particularly on the cheek, lips or upper eyelid. Haemangiomas can also appear on the organs inside the body usually when a child has multiple haemangiomas. The organ most commonly affected is the liver, but occasionally the airway, heart and brain may be involved. Babies with multiple haemangiomas may need an ultrasound scan to confirm this or rule it out.

# How are haemangiomas diagnosed?

Superficial haemangiomas are different to other types of birthmark so no special diagnostic tests are needed usually.

A child with a haemangioma near the eye, or a deep haemangioma, or one affecting the internal organs may require ultrasound and/or MRI scans.

# Looking after your child's haemangioma

In most cases, haemangiomas just need looking after carefully.

As the blood vessels in a haemangioma are so near the surface of the skin, they can bleed if they are knocked or scratched. It is important to keep your nails and your children's nails cut short and buffed smooth, so that they don't catch the surface of the haemangioma.

If the haemangioma starts to bleed, apply pressure over it with a clean handkerchief, cloth or tissue for at least five minutes. If blood soaks through the handkerchief, cloth or tissue, put another one on top and keep up the pressure. Do not take it off to have a look as this could start the bleeding again. If the bleeding continues, even

after pressing down on the haemangioma for five minutes, go to your nearest NHS Walk-In Centre or Accident and Emergency department. The team at GOSH can usually be contacted for advice if needed.

The surface of the haemangioma is delicate and can be very dry, so avoid using bubble bath, rinse any soap or shampoo off carefully and pat the area gently afterwards. A thin layer of Vaseline® put gently over the top of the haemangioma can stop it drying out.

The nappy area is naturally warm and moist, so put a layer of Vaseline® or other water resistant cream over the haemangioma at each nappy change. Baby wipes can be irritating, so a better alternative is to use damp cotton wool especially when you are out with your baby.

Haemangiomas need protection from the sun the same as the rest of your child's skin. Use a high factor sun cream on all areas of exposed skin, use a hat to protect your child's face and/or an umbrella over the buggy or pushchair.

You might find it difficult to adjust to your child's appearance, particularly if people are staring or making comments. Our leaflet *Bringing up a child whose face looks different* contains lots of ideas and suggestions from the Birthmark team and parents of children with birthmarks.

# When might my child's haemangioma need treatment?

Most haemangiomas do not require any treatment, but there are circumstances when treatment might be needed. If you are concerned about any of these, please contact The Birthmark Unit.

### Ulcerated haemangiomas

Occasionally, haemangiomas can form an open sore or ulcer, which is painful. Ulcers can become infected, so a visit to your doctor is important, as infected ulcerated areas may need treatment with antibiotics.

Haemangiomas that are around the mouth, in the nappy area or in folds of skin, like the armpit, ear and neck, are most likely to become ulcerated. This is often due to the friction of the two surfaces of skin rubbing together.

The nappy can rub haemangiomas in the nappy area, and contact with faeces (poo) or urine makes the ulcer more painful. Wherever the haemangioma is located, an ulcer is painful, and may bleed, or become infected. In the long term, an ulcerated area is more likely to leave a scar than a non-ulcerated area of haemangioma.

If your child's haemangioma develops an ulcer, it will need special attention until it heals. Keep the area clean by washing it twice a day, preferably in a bath or by pouring water over the area, and leave it to dry naturally. Once the area is dry, cover the whole haemangioma with a



non-sticky dressing. These are available on prescription from your GP. Some areas of the body are more difficult to apply dressings to than others. For help, advice and guidelines, please contact the Birthmark Unit.

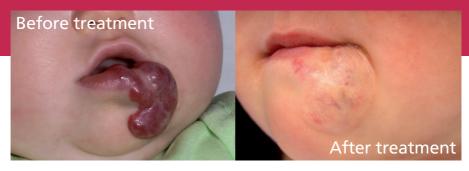
### Haemangiomas near the eye

Haemangiomas near the eye can have long-term effects on a child's vision,

so need to be checked by a specialist eye doctor (ophthalmologist). The haemangioma can press on the eyeball, causing it to go slightly out of shape, affecting how images are focused on the retina, which in turn alters the messages sent to the brain from the eye. If the haemangioma gets in the way of a child's field of vision, a condition called 'lazy eye' (amblyopia) can develop because the brain will filter out the image from the lazy eye and relies instead on the image produced on the retina from the 'good' eye. Over time, the lazy eye loses the ability to see accurately. It is treated by forcing the brain to use the lazy eye instead of relying on the 'good eye'. This is usually done by covering up the good eye or blurring its vision with eye drops. This forces the brain to use the lazy eye and over time, the vision usually improves. Haemangiomas that are blocking vision may need treatment with beta blockers.



Same child at ages one and five years



#### Haemangiomas on the lips

Haemangiomas on the lips may become ulcerated (see above right), and because ulcers are so painful, the child may not want to feed. Giving your child pain relief, before feeding can help. It can also help to put some Vaseline® on the teat of the bottle (or around your nipple if you are breast feeding) to reduce friction and make feeding less painful.

Due to their location, it is impossible to put a dressing on an ulcerated lip, and a child's drooling means lip ulcers often take a long time to heal. Treatment with beta blockers may speed up healing.

Haemangiomas obstructing the airway Haemangiomas on the child's jaw, chin or neck can sometimes be associated with breathing difficulties. The first sign of this is stridor, a rasping sound with each breath.

### **Treatment options**

There are lots of treatment options available; which option is suggested depends on the size and location of your child's haemangioma.

#### ■ Pain relief

Haemangiomas are painful when they are ulcerated, so your child may need regular pain relief. Pain medicines such as paracetamol are enough if your child does not seem to be in too much pain. If the ulcerated area is large and/or around the lip or nappy area, stronger pain medicines such as morphine might be needed before feeding or nappy changing. Your GP will advise on pain relief medicines. If your child's haemangioma is ulcerated and covered in a dressing, pain relief will be needed each time the dressing is changed.

#### Antibiotics

Antibiotics are recommended when an infection of an ulcerated haemangioma is suspected. These are usually given in the form of a cream or ointment to put directly on the ulcerated area, but widespread infection may need antibiotics in the form of tablets or a liquid as well. Occasionally, a child might need intravenous (into a vein) antibiotics and a stay in hospital.

### Propranolol

A beta blocker called propranolol may be needed when the haemangioma is near the eye, lips, or nappy area. It is usually given as a liquid. Treatment may need to continue for 18 months or longer but results are promising. For more information, please see our information sheet Treating haemangiomas with propranolol.

# What are the long-term effects of a haemangioma?

Most haemangiomas will have disappeared completely by the age of five to seven years. Large haemangiomas may continue to get smaller until your child is about eight to ten years old.

Depending on the size and location of the haemangioma, there may be little sign it ever existed. Occasionally the affected area of skin might be a bit lighter in colour than the rest of your child's skin. Thread veins are also common; these are tiny red veins on the surface of the skin. These may be treated with a laser later on in childhood.

Large haemangiomas may distort the surrounding skin and even when they disappear, leave behind an area of stretched skin that looks puckered or wrinkled. This can be improved with plastic surgery. Some children may have some leftover fatty tissue. This can be removed by a plastic surgeon. Haemangiomas affecting the ear or nose can leave some distortion, which can usually be improved using plastic surgery.

## **Conclusion**

Vascular birthmark research is an area of medicine that is continually advancing. Studies have already given us improved options for treating haemangiomas and continue to tell us more about how and why they develop. We hope that this leaflet has been helpful in giving you more information about your child's haemangioma. If you have any comments about it, please contact the Birthmark Unit.

# Ulcerated haemangioma



Reducing



Reduced



### Where to get further information

#### At Great Ormond Street Hospital

Birthmark Unit, Great Ormond Street Hospital, London WC1N 3JH

Tel: 020 7829 8668

In an emergency please telephone 020 7405 9200 asking them to bleep a member of Birthmark Unit staff.

#### Support groups

**Birthmark Support Group** 

PO Box 327, 181 Mill Street, West Malling ME19 6WW.

Tel: 0845 045 4700.

Email: info@birthmarksupportgroup.org.uk Website: www.birthmarksupportgroup.org.uk

**Changing Faces** 

The Squire Centre, 33-37 University Street, London WC1E 6JN

Tel: 0845 4500 275 Fax: 0845 4500 276

Web: www.changingfaces.org.uk www.iface.org.uk

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Compiled by the Birthmark Unit with assistance from parents of children with haemagiomas in collaboration with the Child and Family Information Group.

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