



## **HAEMANGIOMA OF INFANCY**

### **What are the aims of this leaflet?**

This leaflet has been written to help you understand more about haemangioma of infancy (infantile haemangioma). It tells you what this condition is, what it is caused by, what can be done about it, and where you can find out more about it.

### **What is a haemangioma of the skin?**

A 'haemangioma' (Greek for blood-vessel-growth) of Infancy is a benign (not cancerous) overgrowth of blood vessel cells that is self-limiting (will stop growing without treatment). The term 'strawberry naevus' or 'strawberry haemangioma' is used for a haemangioma that look similar to a strawberry.

### **What causes haemangiomas of Infancy?**

The cause of haemangiomas is not understood. The cells lining blood vessels (endothelial cells) start to overgrow either when the baby is still in the mother's womb or soon after birth. Haemangiomas of infancy are more common in white children, females, premature infants with low birth-weight, twin/multiple pregnancies and with increasing age of the mother.

### **Are haemangiomas of Infancy hereditary?**

Haemangiomas of infancy do not usually run in families, but may rarely be inherited. They are relatively common, affecting about 5% (1 in 20) of babies. They are not contagious or cancerous.

### **What do haemangiomas of Infancy look like?**

The majority affect the face, but any part of the skin or other organ can be involved. The appearance changes rapidly during early life. A small red mark or swelling may

be visible at birth or develop during the first weeks of life. This may increase in size usually most quickly over the first 3 months. Further change is usually slower and gradual for up to twelve months. Usually the haemangioma subsequently shrinks in size for up to 10 years ('regression'). However, some haemangiomas don't grow much at all and some do not shrink.

Haemangiomas may be present mostly on the skin surface and appear red in colour. Those with a deeper component appear as a swelling underneath the skin and may have a bluish colour. Occasionally haemangiomas can be multiple or they can be quite large and cover a large area of skin (segmental haemangioma).

When a haemangioma shrinks, there may be no visible mark left behind. Some may resolve with residual blood vessels visible. Others may leave a scar (particularly if there has been ulceration of the haemangioma), a pale area of skin or an area of loose skin or thickened tissue.

### **What are the symptoms of haemangiomas of the skin?**

Most haemangiomas do not cause any symptoms, but can be alarming to parents and carers, especially during the phase of rapid growth. Rarely the skin over the haemangioma breaks down (ulcerates), most often in the nappy area. This can be painful. Bleeding of the ulcerated skin may occur but this is rarely severe and usually stops with application of pressure.

Haemangiomas near the nose or mouth may cause breathing or feeding problems. Haemangiomas growing too close to the eye may interfere with the development of normal vision, especially if the eye is closed due to the swelling or if the swelling is pressing on the eye.

Children with more than 5 haemangiomas of the skin may rarely have haemangiomas involving internal organs, most commonly the liver. An ultrasound or other scan may be recommended.

Segmental haemangiomas tend to need longer and more intensive treatment. They may be part of more widespread problems, in particular if they affect the face, scalp or back of the neck.

Children with haemangiomas over the midline of the lower back may require screening for underlying abnormalities of the spinal cord, inner organs and genitalia.

### **How is a haemangioma of infancy of the skin diagnosed?**

The diagnosis can be made by the appearance of the haemangioma and the history of rapid growth followed by slow regression. Sometimes scans will be organised to help confirm the diagnosis or to get further information about the extent of the haemangioma. For deeper or less typical lesions, a biopsy (skin or tissue sample) may be required to confirm the diagnosis.

### **Can haemangiomas of infancy be cured?**

Most haemangiomas will gradually shrink or even fully disappear without leaving an obvious mark. Although many small haemangiomas clear up completely, with or without treatment, some permanent skin change can remain.

### **How can haemangiomas of infancy be treated?**

Most haemangiomas do not require treatment except in the following situations:

- If the haemangioma is particularly large or affects areas where resolution may be incomplete such as around the nose, lips or ears.
- If the haemangioma is ulcerating (the surface of the skin is broken)
- If the haemangioma is interfering with important functions such as feeding or breathing or the development of senses: e.g. hearing or vision.

Treatment can consist of one or a combination of the following:

- A topical solution or gel applied directly to the haemangioma
- Medicines (orally by mouth or by injection)
- Laser therapy
- Surgery

For haemangiomas that are still growing topical or oral treatments are most often used.

Drugs called beta-blockers shrink blood vessels and can be used as a topical treatment or as an oral medicine:

- Timolol can be applied as a solution or gel to the haemangioma. It has been proven to be safe and effective, especially for more superficial lesions
- Propranolol given by mouth is now the first choice to treat haemangiomas at important anatomical sites such as around the eyes or mouth. Heart rate, blood pressure and blood sugar need to be monitored during treatment. Common side effects include constipation, diarrhoea, cold arms and legs and sleep-disturbance. Because propranolol can lower the blood sugar, it should be given

during the day around feeding time and discontinued if the child is unwell. Almost all haemangiomas respond to propranolol. Treatment usually lasts for 6 to 12 months.

Steroid creams, injections or tablets were frequently used before the discovery of the benefits of propranolol, but are now less commonly used. Steroids may be used for children who cannot be given propranolol due to possible side effects.

An ulcerating haemangioma needs additional treatment with non-adherent dressings and pain relief. Laser therapy can be useful to treat ulcerated lesions. Antibiotic ointment or medicine may also be required to manage infection.

After the haemangioma has stopped shrinking, surgical removal of excess tissue or laser treatment of remaining redness can sometimes be useful. The Pulsed Dye Laser is most commonly used. It produces a beam of specially formed light that reacts with the red colour in blood and penetrates to about 1.2mm into the skin. In adults, usually no anaesthetic is required. However, laser treatment in children, may require use of a general anaesthetic as laser treatment can be painful. After treatment, there is dark purple bruising in the treated area. Other possible temporary side effects include blistering and crusting. Rarely, scarring may occur.

Surgical treatment of haemangiomas will leave a scar and is therefore not advised for uncomplicated haemangiomas, which may resolve without leaving a mark. Surgery may rarely be required to treat ulceration, obstruction or residual skin deformity caused by a haemangioma.

Cover-up makeup can be useful to cover skin discolouration. The Charity 'Changing Faces' may offer camouflage advice in your area (see below for further information).

### **Where can I get more information about a haemangioma of infancy?**

*Web links to detailed leaflets:*

<http://emedicine.medscape.com/article/1083849-overview>

<http://dermnetnz.org/vascular/haemangioma.html>

<http://www.patient.co.uk/doctor/Strawberry-Naevus.htm>

<http://www.uptodate.com/contents/management-of-infantile-hemangiomas>

<http://www.gosh.nhs.uk/medical-information-0/search-medical-conditions/haemangiomas>

*Links to patient support groups:*

*Birthmark Support Group*

Tel: 07825 855 888

Email: [info@birthmarksupportgroup.org.uk](mailto:info@birthmarksupportgroup.org.uk)

Web: <http://www.birthmarksupportgroup.org.uk/>

*Changing Faces*

Tel: 0300 012 0275 (for support and advice)

Tel: 0300 012 0276 (for the Skin Camouflage Service)

Email: [skincam@changingfaces.org.uk](mailto:skincam@changingfaces.org.uk)

Web: [www.changingfaces.org.uk](http://www.changingfaces.org.uk)

*British Association of Skin Camouflage (NHS and private practice)*

Tel: 01254 703 107

Email: [info@skin-camouflage.net](mailto:info@skin-camouflage.net)

Web: [www.skin-camouflage.net](http://www.skin-camouflage.net)

For details of source materials used please contact the Clinical Standards Unit ([clinicalstandards@bad.org.uk](mailto:clinicalstandards@bad.org.uk)).

**This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.**

*This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel*

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