



## **VASCULAR BIRTHMARKS: SALMON PATCHES, PORT WINE STAINS AND STRAWBERRY MARKS**

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

This leaflet has been written to help you understand more about three of the most common vascular birthmarks. It tells you what they are, why they develop, what can be done about them, and where you can find out more about them.

### **What are vascular birthmarks?**

They are marks made up of abnormal blood vessels in the skin. There are many different types, and only three are described in this leaflet: salmon patches (naevus simplex); port wine stains (naevus flammeus); and strawberry marks (infantile haemangiomas). Strictly speaking only the first two are birthmarks as strawberry marks usually appear in the first few weeks of life.

### **SALMON PATCHES**

These are the commonest of the vascular birthmarks, occurring in one of every 2 newborn babies. They are present at birth as flat, dull-red areas on the eyelids, bridge of the nose, the upper lip and on the nape of the neck (where they are sometimes referred to as 'stork bites'). Usually inconspicuous, they are more noticeable when the child is crying. Most of them fade during infancy, though 50% of those on the nape of the neck persist into adult life. No treatment is needed.

## **PORT WINE STAINS**

### **What are port wine stains?**

A port wine stain is a pink or red mark on the skin, usually present at birth.

### **What causes port wine stains?**

Port wine stains develop in areas lacking the small nerves that control the ability of blood vessels to constrict. As a result, the blood vessels stay open all the time, and this shows up as a permanent blush in the area. Port wine stains occur in about 3 per 1000 births, affecting males and females and all racial groups equally.

### **Are they hereditary?**

Usually they are not.

### **What are the symptoms of port wine stains?**

Usually there are none, but they may look unsightly. They can cause a lot of embarrassment on visible areas such as the face. A lot can be done to reduce their psychological impact, including the treatments discussed below, camouflage, and advice from patient support groups.

Later in life port wine stains can become bumpy, raised and difficult to cover with makeup. When the bumpy areas are scratched they may bleed easily.

Port wine stains of the eyelid area and upper jaw sometimes lead to increased pressure within the eye. Rarely such patients may be prone to seizures and require further investigation. An extensive port wine stain of a limb is occasionally associated with an increased growth of that limb.

### **What do port wine stains look like?**

Port wine stains are red or purple areas. They usually affect only one side of the body, seldom extending across the midline. They can come up on any area of the skin, but the face and upper trunk are the most common sites. The pink, smooth and flat port wine stains of babies eventually become red and then purple, darkening and even thickening with age. Port wine stains persist, enlarging in proportion as the body grows. In adult life, their surface becomes uneven and bumpy, and bleeds easily.

## **How are port wine stains diagnosed?**

Port wine stains are recognised by their typical appearance.

## **Can port wine stains be cured?**

They can be made much less obvious by the treatments listed below.

## **How can port wine stains be treated?**

**Laser treatment.** Treatment with pulsed dye lasers is available in a number of specialised centres in the U.K. It helps most patients, particularly if the mark is on the face, but may not clear the port wine stain completely. Port wine stains in older children can be treated under a local anaesthetic, often using an anaesthetic cream. Young children, and those having very extensive areas treated, especially around the eyes, need to have their laser treatment under a general anaesthetic or with sedation.

Depending on the size and site of the birthmark, up to 10 treatment sessions may be required at intervals of 8 weeks or so. Port wine stains on the limbs respond less well than those on the face. Treatments given early in life, before the birthmark becomes thickened, are more successful than those used later on.

**Cosmetic camouflage.** Cosmetic or camouflage creams are often very helpful. Expert advice is available in special Red Cross clinics based at selected dermatology centres. Changing Faces and the Disfigurement Guidance Centre also offer a comprehensive service for patients and their families with all types of birthmark. The details are given at the end of this leaflet.

## **STRAWBERRY MARKS**

### **What are strawberry marks?**

They are soft raised swellings on the skin, often with a bright red surface, and some may look a bit like a strawberry. They are also known as strawberry naevus or as infantile haemangiomas. They appear after birth, usually in the first month, and can occur anywhere on the skin. They are more of a problem when they affect the face or nappy area.

## **What causes strawberry marks?**

This is not fully understood. They are a benign overgrowth of blood vessels in the skin, and are made up of cells that usually form the inner lining of blood vessels. They are thought to occur as a result of a localised imbalance in factors controlling the development of blood vessels.

Strawberry marks affect as many as one in ten newborn Caucasian babies but only about 1% of Asian and black children have them. They are particularly common in premature babies. Strawberry marks are not a sign of ill health, or associated with cancer. There are many myths that can be discounted and parents should not feel responsible if their child develops one.

## **Are they hereditary?**

No.

## **What are the symptoms of strawberry marks?**

Usually there are none, however they may look unsightly. A few grow quite large and may bleed or become infected.

## **What do strawberry marks look like?**

Usually there is only one strawberry mark, but sometimes several come up at the same time. They can appear on any area of skin but a majority (60%) do so on the face and neck. If the haemangioma is within the skin, it will be bright red, like a strawberry, whereas if it is located a little deeper, it may appear blue. When located beneath the skin, the haemangioma may be skin coloured.

Strawberry marks tend to start small and then to grow quite quickly, most reaching their final size in 3 to 9 months. This ranges from 1 to 25 cm, but most end up no bigger than a 50 pence coin. They then start to shrink quite slowly. The following figures give a rough time scale:

- 30% of them will have faded by the third birthday
- 50% by the 5<sup>th</sup> birthday
- 70% by the 7<sup>th</sup> birthday

Sometimes the skin stretched by the mark will be thin or baggy after the haemangioma has shrunk, and, if that is a problem, plastic surgery can help when the child is older. It is not possible to predict how fast or how large

strawberry marks will grow; how long they will take to shrink; or whether they will leave a mark behind - but the result is almost always better than expected.

### **How will a strawberry mark be diagnosed?**

The diagnosis will be based on the appearance of the haemangioma and on the way it grows after it has come up.

### **How can strawberry marks be treated?**

The vast majority of them need no treatment, as they will shrink on their own, and children under the age of 3 years are seldom aware of their blemishes.

Bleeding may occur but, even with accidental trauma, this is likely to be minor. It will stop easily and quickly with pressure from a finger or an ice pack, followed by a sterile dressing to cover it. Plastic surgery can be used if the skin stays baggy or stretched when the haemangioma has gone away.

A few haemangiomas grow so quickly that they threaten to interfere with vision, breathing, or feeding (if located on the face), or passing urine or stools (if located in the nappy area). These are best treated early to avoid complications. The treatment is aimed at inducing rapid shrinkage.

- **Laser treatment** available in specialist dermatology centres is used to stop bleeding in ulcerated haemangiomas, and can speed up healing and shrinkage of the haemangioma. If carried out very early in the rapid growth period, laser treatment may slow down the growth and induce shrinkage but this is not always the case.
- **Steroids** have been used by injection and are still used by mouth for the rare haemangiomas that are serious or dangerous because of their size or location.
- **Propranolol**, a medicine used to treat high blood pressure in adults, has been successfully used in babies with large complicated haemangiomas.

### **Where can I get more information about vascular birthmarks?**

*Links to patient support groups:*

*Skin Camouflage Service*  
British Red Cross  
44 Moorfields  
London, EC2Y 9AL

Tel 020 7877 7000 / 08448711111  
Fax 020 7562 2006  
Email: [ckingsbury@redcross.org.uk](mailto:ckingsbury@redcross.org.uk)  
Web: [www.redcross.org.uk](http://www.redcross.org.uk)

*Web links to detailed leaflets:*

[www.changingfaces.co.uk](http://www.changingfaces.co.uk)  
[www.skincamouflage.net](http://www.skincamouflage.net)  
[www.skincamouflagenetwork.org.uk](http://www.skincamouflagenetwork.org.uk)  
[www.pariant.co.uk/showdoc/23069062/](http://www.pariant.co.uk/showdoc/23069062/)  
[www.emedicine.com/derm/topic201.htm](http://www.emedicine.com/derm/topic201.htm)  
[www.dermnetnz.org/dna.haemangioma/haeman.html](http://www.dermnetnz.org/dna.haemangioma/haeman.html)  
[www.btinternet.com/~birthmarksupportgroup/home.htm](http://www.btinternet.com/~birthmarksupportgroup/home.htm)

**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: its contents, however, may occasionally differ from the advice 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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