



EUROPEAN  
ACADEMY OF  
DERMATOLOGY &  
VENEREOLGY

Information Leaflet  
for Patients

# Transient neonatal dermatosis

## The aim of this leaflet

This leaflet is designed to help you understand more about transient neonatal (or newborn) dermatosis. It discussed the most common benign conditions seen in newborns and what it looks like, what can be done, answers to common questions, and practical advice for managing this condition.

# Transient neonatal dermatosis

## What is transient dermatosis in newborns?

During the first 30 days of life, newborn skin shows many physiologic (normal) changes. These temporary conditions (due to the skin adaptation to the new dry environment, the variability of the temperature, and the progressive maturation of the skin) are important to recognize. Not only can you as parents be reassured, but also expensive, unnecessary, and inaccurate evaluations and treatments of presumed serious diseases can be avoided.

## Who is affected by the disease?

*Vernix caseosa* (a white protective coating on the skin) is generally still present on the skin of preterm and term newborns. It is almost absent in post-term neonates (born at 42 weeks and beyond).

- *Transient pustular melanosis* (a rash) is more common in dark phototypes (dark skin).
- *Mongolian spots* (blue-gray spots) are very common in African-American newborns (up to 80%), common in Asians (40-60%), and less common in Caucasians (10%).
- *Erythema toxicum neonatorum* (reddish patches) is virtually absent in preterm newborns.

## How are these conditions categorized?

These transient conditions are classified by their presence (or not) at birth. Those present at birth include: *vernix caseosa*, vascular changes (*physiologic cutis marmorata* [net-like mottling of the skin]), "Harlequin" phenomenon [colour change], *papular/pustular* eruptions or small inflammatory lesions (mainly smaller lesions on the nose/cheeks with *milia* and *sebaceous gland hyperplasia* and on the palate with Epstein pearls, and generalized lesions with *transient pustular melanosis*), "sucking blister" (on hand from sucking during pregnancy), *mongolian spots*, and "salmon patches" (pink/red birthmarks). Conditions that are not present at birth include *erythema toxicum* of the newborn (a general eruption), vaginal discharge, and breast enlargement.

## What do these conditions look like?



### ***Vernix caseosa***

Whitish, sticky, waxy substance coating the skin of newborn babies.



### ***Physiologic cutis marmorata***

A common, benign *reticular* (net-like) mottling of the skin that is due to physiologic enlargement of capillaries and small veins in response to cold.



### **"Harlequin" colour change**

A well-defined colour change, with part of the body displaying redness and the other part pallor (paleness). This change fades away in seconds or minutes.



### **Milia**

Tiny, whitish scattered *papules* (small lesions) that typically appear on the nose and cheeks. These cysts occur when keratin (a tough protein produced by your cells) becomes trapped beneath the skin.



### **Transient pustular melanosis**

Mainly seen in darker skin, superficial *pustules* rupture easily with a remaining characteristic "collarette" of scale (scaly outer edges of lesions as they begin to clear) and brown *hyperpigmented* macules (dark flat lesions) that may persist for weeks or months.



### **Mongolian spots**

Blue-gray spots located on the lower back and buttocks, prevalent in Asian and black babies. Most lesions will fade within the first year of life.



### **Sebaceous gland hyperplasia**

Yellowish, grouped, small *papules* on the nose and cheeks that are a natural response to the maternal hormones of pregnancy.



### **"Sucking blister"**

These *erosions* (missing patches of skin), a result of vigorous sucking during fetal life, are typically located on the outer aspect of hands and resolve without specific treatment within days to weeks.



### **"Salmon patches"**

These are flat patches of pink or red skin with poorly defined borders, commonly found at the nape of the neck ("stork bite"), on the mid-forehead ("angel's kiss"), or on the eyelids. They become more noticeable when the child is crying. Most lesions will disappear within the first year of life.

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## ***Erythema toxicum neonatorum***

Whitish-yellowish *papules* or *pustules* surrounded by an indistinct *erythematous* (reddened) halo. It appears in up to half of newborns, usually between days 2–5 after birth.



## ***Erythema toxicum neonatorum***

(back, reddish spots that are *confluent* [running together]) The “Koebner phenomenon” (appearance of *confluent* skin lesions in areas of trauma/friction).



## ***Physiologic breast enlargement***

Breast enlargement occurs in both male and female newborns due to the influence of maternal hormones during fetal life. It is not painful and usually occurs on both sides.

## **How are these conditions treated?**

All these conditions are transient and uneventful, so they do not require any therapy.

## **What are common questions about newborn skin?**

### **• What is normal and what is not?**

#### **Blisters:**

A blister on the outer surface of the hand is common (“sucking blister”).

Many blisters in different sites are **not** normal (e.g. *Epidermolysis bullosa* [a hereditary disease], *staphylococcal* infection, and other *bullous* diseases).

#### **Blue Patches:**

Large blue-gray spots present at birth (in the sacral region but also in other sites, excluding around the eye) without associated vascular patches are normal, especially in Asian and in black babies (i.e. *Mongolian spots*).

Large blue-gray spots associated with vascular patches need multidisciplinary consultation as it is possibly a genetic condition (such as *Phakomatosis*). Small blues spots with a fast progressive onset after birth are



probably a sign of a severe condition (e.g. infection or *thrombocytopenia* [decreased platelets]).

#### **Pustules:**

Multiple whitish *pustules* (pus-filled lesions) present at birth with one or more “collarette” (scaly outer edges of lesions) in a healthy newborn are quite common, mainly in blacks (i.e. *transient pustular melanosis*).

Multiple whitish *pustules* without a “collarette sign” at birth or after birth are **not** normal and need further evaluation (e.g. possible *candidiasis* [yeast] or *herpes simplex* infections).

#### **Papules:**

Whitish or yellowish small *papules* on the face at birth are normal (i.e. *milia* and *sebaceous gland hyperplasia*).

Yellowish large *papules/pustules* occurring after birth (especially if around the navel, or in frictional areas) are **not** normal and need further evaluation (e.g. *staphylococcal* infections). Acquired pruritic (itchy) papules on the back, legs, arms, head, and especially palms and soles are not normal and require further evaluation (they may be from *scabies*, itching caused by mites).

#### **Transient pomphoid eruption:**

Transient *erythematous, pomphoid* eruption with small *pustules* a few days after birth is common (i.e. *erythema toxicum neonatorum*).

Transient *pomphoid* eruption with large lesions in a sick/irritable newborn is **not** normal and needs

multidisciplinary consultation (it may be *urticaria* [hives] after infection, allergic reaction to formula, or an auto-inflammatory condition such as *CINCA* [*Chronic Infantile Neurological, Cutaneous, and Articular*] Syndrome).

#### **Breast enlargement:**

A bilateral, “hormonal” breast enlargement without pain and fever is normal. Breast enlargement on only one side along with fever and pain is **not** normal (e.g. *staphylococcal mastitis*).

#### **Vascular red/rose patches:**

Symmetric (same on both sides) patches on the nape of the neck, on the front, or on the eyelids are usually temporary and very common in Caucasian babies (“salmon patches”). Asymmetric vascular patches in any location are permanent, **not** normal, and require multidisciplinary consultation (e.g. isolated or syndromic vascular malformations).

#### **Pale patches:**

Pale patches that change with position are transient and uneventful (i.e. “Harlequin” phenomenon).

Unchanging pale patches are **not** normal and require multidisciplinary consultation (e.g. *hemangioma* precursors, *nevus anemicus* [a possible first sign of neurofibromatosis type 1 or NF1]).

#### **• What signs should alert me that something may be going wrong?**

If your newborn’s skin (in the first 30 days of life) shows something different that clinicians (i.e. doctors

and nurses) did not note before, call to set up an appointment to see them. Before calling, check all other signs (e.g. fever, general conditions, urine, etc.). Clinicians need information to give you the right answer!

#### **• How can I describe to the doctor/nurse the rash that I have seen on my child?**

Take a picture with your smartphone or camera. With transient, temporary lesions, a good picture is more helpful than many words.

#### **What is practical advice for taking care of the disease?**

- Keep in mind that the changes you notice in your newborn’s skin are, in most cases, a case of transient neonatal dermatosis. It is important to be aware of any other symptoms occurring with this condition, and your child’s general health history in order to discuss it with clinicians.
- However, if no one has reported it in your newborn’s personal healthcare booklet or explained it to you, do not hesitate to ask for explanations from clinicians (i.e. doctors and nurses).

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While every effort has been made to ensure that the information given in this leaflet is accurate, not every treatment will be suitable or effective for every person. Your own clinician will be able to advise in greater detail.



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