



EUROPEAN
ACADEMY OF
DERMATOLOGY &
VENEREOLOGY

Information Leaflet
for Patients

Atopic eruption of pregnancy (AEP)



The aim of this leaflet

This leaflet has been written to help you understand more about *Atopic eruption of pregnancy* (AEP). It tells you what the condition is, what causes it, and how it can be treated.

Atopic eruption of pregnancy (AEP)

What is Atopic eruption of pregnancy

Atopy is the term used for the tendency to develop eczema, asthma, hay fever and/or food allergy.

Atopic eczema is a condition which causes dry, itchy and inflamed skin. It can affect any part of the body, however the areas most commonly affected are the skin creases of the elbows, knees, wrists and neck. It affects both sexes equally and usually starts in childhood. It most commonly occurs in children, affecting at least 1 in 10 babies. It can persist into adult life or, after a dormant period, may recur in the teenage years or early adult life. Many environmental factors can make eczema worse (such as stress, infections, pregnancy, heat or contact with irritants like dust, animal fur/hair, soap or detergents).

Atopic eruption of pregnancy (AEP) is the term used when atopic skin changes occur in pregnancy. AEP usually develops during the first half of pregnancy (in 75% of cases before the third trimester). The majority of women develop eczematous changes for the first time during pregnancy (approximately 80% of cases of AEP). These patients often have a history of sensitive skin with a tendency toward dryness and irritation (called atopic diathesis). They may also have a first-degree relative with eczema, asthma, and/or hay fever. The remaining 20% of cases of AEP are women who already have a previous history of eczema but experience a flare-up of their disease during pregnancy.

What causes Atopic eruption of pregnancy?

This is still not fully understood. Atopy runs in families and is part of your genetic make-up. *Atopic* people have a defective skin barrier, predisposing the skin to becoming dry and more susceptible to infections. Exposure to soaps and allergens can further impair the skin barrier, predisposing the skin to become inflamed (red and sore). During pregnancy, there are immune system changes. This may lead to worsening of pre-existing eczema or to the development of *atopic* skin changes for the first time in a person's lifetime. Eczema usually improves or disappears after delivery; however, a small number of women may continue to have eczema, particularly in subsequent pregnancies.

Does Atopic eruption of pregnancy run in families?

Yes, atopic eczema (as well as asthma and hay fever) tends to run in families. If one or both parents suffer from eczema, asthma, or hay fever, it is more likely that their children will get it too. Similarly, due to the genetic

background, your sister or mother may also have experienced AEP during pregnancy. This increases the probability that AEP will recur in future pregnancies.

What are the symptoms of Atopic eruption of pregnancy and what does it look like?

The main symptom of AEP is itch. This can be bad enough to interfere with sleep.

Two-thirds of patients suffer from red, scaly, itchy patches (so called *eczematous-type* or *E-type* AEP) in sites typically affected by atopic eczema such as the neck, breasts, and skin creases of the elbows and knees. The other third have tiny, red, raised spots (1-2 mm) or slightly larger raised skin lumps (5-10 mm, occasionally with small open wounds [*excoriations*] due to scratching on the abdomen, back, and limbs (so called *prurigo-type* or *P-type* AEP).

If you suffer from worsening of pre-existing eczema, it is likely that your skin will be red and dry. When the eczema is very active (during a

"flare-up"), you may develop small water blisters (known as vesicles or pompholyx eczema) on the hands and feet, or your skin may become wet and weepy. In areas that are repeatedly scratched, the skin may thicken - a process known as *lichenification*.

How is Atopic eruption of pregnancy diagnosed?

Worsening of existing eczema is usually easy to diagnose by obtaining past medical history and by examination of your skin; however, the first appearance of AEP may be more difficult to diagnose. It can be confused with other skin diseases such as scabies, a rash caused by taking oral medication, or other skin diseases that only occur during pregnancy. It is helpful to tell your doctor if you have a personal and/or family history of *atopy*.

Will the baby be affected by Atopic eruption of pregnancy?

No, atopic eruption of pregnancy does not harm the baby; however, due to the genetic predisposition of AEP, the child may be prone to developing *atopic* diseases during their lifetime such as eczema, asthma, and/or hay fever.

Can Atopic eruption of pregnancy be cured?

You cannot change your genetic predisposition to AEP, however there are many ways of improving disease control.

How can Atopic eruption of pregnancy be treated?

The primary aim of treatment is to relieve itching and to reduce inflammation and redness in the skin. It is also important during pregnancy to use treatments that are safe for both mother and baby. The treatment most often used are moisturisers and steroid creams or ointments.

Moisturisers (emollient creams and ointments) should be applied several

times a day to prevent dry skin and improve the skin barrier. Many are available over the counter, and it is important to choose one that you are comfortable using regularly and that preferably is fragrance-free. Bath emollients and soap substitutes can also be very helpful. Try to avoid bathing and showering too frequently as this can exacerbate dry skin (particularly using hot water for long showers/baths).

Steroid creams or steroid ointments are often necessary to relieve symptoms. The steroid cream or ointment should only be applied to affected areas of skin once daily and a mild- or moderate-strength steroid cream such as hydrocortisone and methylprednisolone aceponat (Advantan®) should be used. The amount of cream applied to the skin should be as small as possible, and ideally only 1-2 small (15-30 g) tubes should be used; however, if the condition is severe, then application of a stronger steroid cream or ointment to the skin in larger quantities may be required to avoid the need for steroid tablets by mouth.

Some patients may benefit from ultraviolet light treatment (UVB), which is considered safe in pregnancy. Please speak to your doctor about ensuring adequate folic acid supplementation whilst receiving this treatment and make sure to cover your face during light treatment to prevent hyperpigmentation (*melasma*).

Antibiotics may be needed if your rash becomes wet and weepy, (this may indicate that it is infected with a bacteria called staphylococcus aureus, which causes impetigo). Flucloxacillin and Cephalosporins would usually be the first choice of antibiotics for impetigo during pregnancy.

In addition, oral antihistamines may help to relieve the itch.

The following are considered safe in pregnancy:

- **Sedating** (cause drowsiness): Di-

phenhydramine, Chlorpheniramine

Note: Avoid within the last 4 weeks of pregnancy as they can cross the placenta and cause drowsiness/irritability in the newborn baby and may induce preterm contractions.

- **Non-sedating**: Loratadine, Cetirizine.

Note: Loratadine is the antihistamine of choice throughout pregnancy and breastfeeding.

Oral steroid tablets may be required for severe flares of eczema; they should only be given in low doses and for as short a period as is necessary. Prednisolone is the steroid tablet of choice during pregnancy.

Creams or ointments that suppress the immune system such as tacrolimus (Protopic®) and pimecrolimus (Elidel®) are generally considered safe for use sparingly during pregnancy. As there is much more data on the use of tacrolimus during pregnancy, it is usually recommended over pimecrolimus – in particular if anti-inflammatory treatment is needed for longer on delicate skin area such as the face and breasts.

Is the treatment safe for the baby and mother and is any special monitoring required?

Mild- to moderate-strength steroid creams or ointments are safe during pregnancy; however, stronger steroid creams and ointments may affect the growth of the unborn baby (small for dates) especially if the mother is using large amounts of steroid creams or ointments [more than 50g (1/2 large tube) per month or over 200-300g (2-3 large tubes) throughout the whole pregnancy].

Short courses (around 2 weeks) of prednisolone, the steroid tablet of choice in pregnancy, do not usually affect the unborn baby. However, high doses of oral prednisolone administered during longer periods (which are usually not necessary for the treatment of AEP) may affect the

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baby's general development, in particular its growth rate. When steroid tablets are taken, there is also an increased risk of the mother for developing diabetes (raised blood sugar levels) and hypertension (raised blood pressure). Close monitoring at antenatal appointments is essential to check blood pressure, urinalysis (urine dipstick) and ultrasound monitoring of the baby's growth.

In some cases, other systemic immunosuppressive medication may be required to control severe disease such as ciclosporin and azathioprine. This may require more frequent monitoring of mother and baby including blood tests and growth scans.

Given that there are limited data proving its safety in pregnancy, Dupilumab (a monoclonal antibody, administered via subcutaneous injections into the skin) should only be used after careful consideration (risk-benefit assessment) in collaboration with your dermatologist and obstetrician. There is, however, little evidence to suggest that the use of Dupilumab during

pregnancy causes harm to the unborn baby. Consider stopping Dupilumab after 27 weeks as it is actively transported across the placenta to the baby in the 3rd trimester.

Is normal delivery possible?

Yes, AEP should not affect your prospects of a normal delivery.

Can women with Atopic eruption of pregnancy still breastfeed?

Yes, provided there are no other reasons you cannot or should not breastfeed. Even while taking oral steroid tablets, women are encouraged to breastfeed as only small amounts of steroid are present in breast milk. Having AEP does, however, predispose you to developing nipple eczema. The regular application of emollient is important to help prevent flares of this. If topical steroids are applied to the nipple, they should be washed off prior to breastfeeding to prevent oral ingestion by the infant.

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.