

# KETOGENIC RASH

## Causes, Remedies and Treatment



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Written by  
Emma Williams MBE,  
Reviewed and approved  
by Matthew's Friends Medical  
Board Members:  
Dr Anita Devlin  
Helena Champion RD  
Judith Munn RD



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# Introduction

Occasionally, families and adult ketogenic patients report a 'rash' occurring in the early days of starting a ketogenic diet or when MCT oil is introduced into a ketogenic diet. This can sometimes be referred to as 'Prurigo Pigmentosa' by the medical community. In most cases, the rash will fade away of its own accord, but in some cases it can be distressing and uncomfortable.

If you see a rash develop then make sure you speak to your ketogenic team and make them aware of it. It is also worth photographing and making a note in your or your child's ketogenic monitoring pack. Make a note of when you saw this rash develop, whether it is getting worse or not, if any treatment was provided or if you tried any remedies for it – but please, make sure you discuss with your dietitian before trying anything new.

The rash can present itself as redness on the skin and in some cases give a sensation of itchiness and the most common areas appear to be around the neck, chest, armpits, back and shoulders, usually where you are likely to sweat more. In some cases the red spots or "papsules" can leave behind a brown pattern after the initial red spots go away.

The rash can last a short time such as couple of weeks, or it can be there for a few months and some of that will depend on what measures were taken to try to alleviate the rash and any associated symptoms.

# What causes a Ketogenic rash?

To be honest, we are not entirely sure – there does not appear to be any concrete evidence as to what causes it although obviously there seems to be a strong relationship between this rash and being in the state of ketosis. The rash can also appear to worsen when other conditions are present, such as perspiration, sunlight, heat, allergens and friction, similar to other types of skin rashes.

**There are several hypotheses about the cause of this rash:**

## 1. Elevated Ketone/Acetone levels.

Acetone is produced when you are in a state of ketosis and can be eliminated from the body via perspiration which could possibly cause some irritation to the skin.

## 2. Nutrient Deficiencies

We know the Ketogenic Diet is not a nutritionally complete diet and it can be deficient in certain nutrients (depending on the restrictiveness of your particular diet). This is why we always advocate that the diet should be medically managed by a trained dietitian, as this will ensure your diet is nutritionally complete and your blood levels of micro nutrients monitored routinely. It is therefore unlikely in our medically managed Ketogenic community that nutrient deficiency will be a reason for the keto rash developing.

## 3. Changes to the Gut Flora

This can be a very positive effect of the ketogenic diet and there are some medical papers to suggest that this MAY be a reason why the ketogenic diet works for patients. However we do know that a considerable and rapid change in diet is known to cause rashes and flu like symptoms in some people for approximately 1- 2 weeks and this could be due to changes in gut bacteria associated with the diet.



## 4. Weight Loss

Keto rash may occur more often when linked to weight loss. If you have lost too much weight or have lost weight and you didn't need to, speak to your dietitian so that your ketogenic diet can be adjusted.

## 5. Food Sensitivities

There are 13 foods which are classed as common allergens. You may be eating much greater quantities of one or two of these allergens as part of your keto regimen. The most common allergens that you may now be eating more of are:

- Ground nuts: Peanuts
- Tree Nuts – Almonds, Hazelnuts
- Sesame Seeds
- Fish – Oily and white flesh
- Shellfish
- Cheese
- Eggs



If you also have a member of your wider family that is intolerant of any of these food groups then speak to your dietitian. All possible intolerances or food sensitivities should be established by a strict exclusion of the suspected food group and the intolerance confirmed by its reintroduction and this **MUST** be done with the supervision of your dietitian. The ketogenic diet is a restricted diet and we don't want to make it any more restricted than it needs to be.

# How to alleviate symptoms and get rid of a Ketogenic rash

- 1 Speak to your medical and dietetic team in the first instance.
- 2 Appropriate supplementation of your diet which your dietitian will take care of for you and calculate for your specific needs.
- 3 Protect and moisturize your skin – work with your dietitian to try the most appropriate brands available in your country.
- 4 Lukewarm/cool baths can alleviate symptoms, you can also add some bicarb of soda to the water to help alleviate the itching (also works for chicken pox!)
- 5 Wear loose fitting clothing with natural fibres – cotton, linen, bamboo for example.
- 6 Stay out of the sunlight – heat and sunlight can sometimes make this rash and its symptoms worse.
- 7 Lower your state of ketosis – your dietitian may make changes to your diet prescription.
- 8 Severe cases (and extremely rare) – Consider taking prescribed skin medications – but you must obviously speak to your medical and dietetic team about this.
- 9 Investigate any possible food sensitivities as referred to above.

**Please rest assured that in most cases where a rash develops, it will disappear in time and it is VERY rare to have such severe cases that someone has to come off of the diet or there has to be major interventions in order to alleviate the symptoms.**

**In all cases, please firstly speak to your managing medical and dietetic team.**