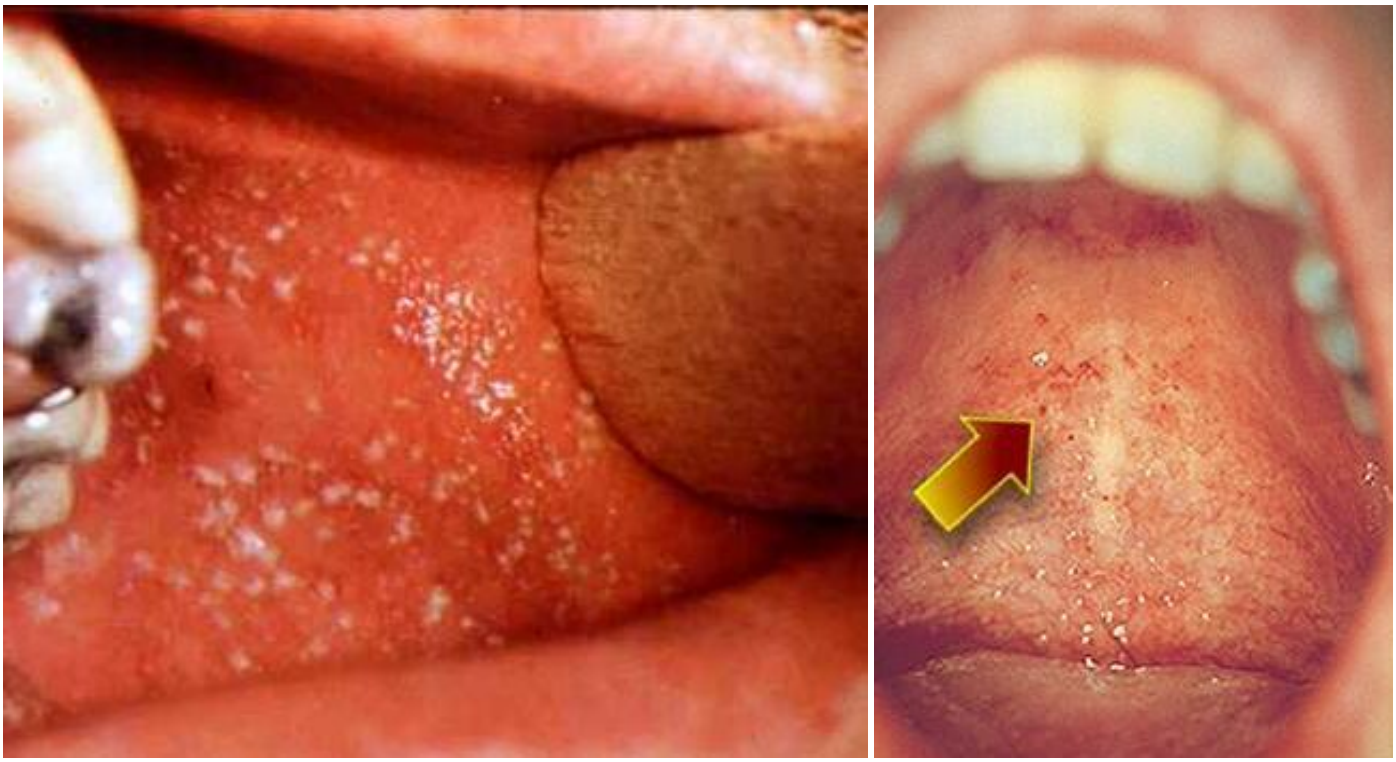
PAEDIATRICS

MEASLES AND RUBELLA

Is this rash caused by measles or rubella?

In this case it is measles, but despite some subtle differences these two conditions are difficult to differentiate by rash alone. However, differences in clinical presentation aid diagnosis. Rubella is less common than measles in the UK.

	Measles	Rubella (aka German Measles)
Virus	Morbillivirus	Rubivirus
Rash	Confluent maculopapular. Koplik spots. Starts on face, densest above shoulders. Lasts 1/52.	Maculopapular rash starting on face. Forschheimer spots. Lasts 3/7.
Fever	Yes	Mild or none
Transmission	Droplet/airborne	Droplet
Symptoms	High fever, coryza, cough & conjunctivitis 3-5 days then rash	Similar but cervical lymphadenopathy likely, fever mild and less toxic
Infective Period	Until 4/7 after rash onset. Isolate from school/pregnant women.	Until 4/7 after rash onset. Isolate from school/pregnant women.
Complications	Pneumonia, otitis media, febrile convulsions, encephalitis, foetal malformations	Rubella encephalopathy (usually benign), panencephalitis, arthalgias, foetal malformations
Notifiable	Yes	Yes



Left: Koplik Spots (measles) **Right:** palatal petechiae called **Forschheimer Spots** (rubella)

Measles is generally a more serious infection and death may result from pneumonia or encephalitis. Rubella takes a more benign course – its main complication is congenital rubella syndrome which leads to a variety of foetal malformations.

Immunisation history is important when diagnosing viral exanthems in children.

The MMR Vaccine

The MMR vaccine immunises against measles, mumps and rubella and was introduced in 1988. This dramatically reduced the incidence of measles and rubella, but a scare regarding a proposed link to autism (for which there is no evidence) led to reduced uptake of the vaccine.

Between 2001 and 2013 the number of cases of measles rose and there were three deaths in this period. Rubella is still very rare and cases are mostly from non-immunised visitors or immigrants from overseas.

The MMR vaccine is a live attenuated virus and is given at 12 months with a booster at 40 months (3 years and 3-4 months). Two doses are about 97% effective in preventing measles and rubella.

IVIG or vaccine is used following exposure to measles in non-immune contacts, especially if immunocompromised or pregnant – contact public health.