

# The management of Verrucas

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# What do we need to know?

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What is a verruca?

How do verrucaes spread?

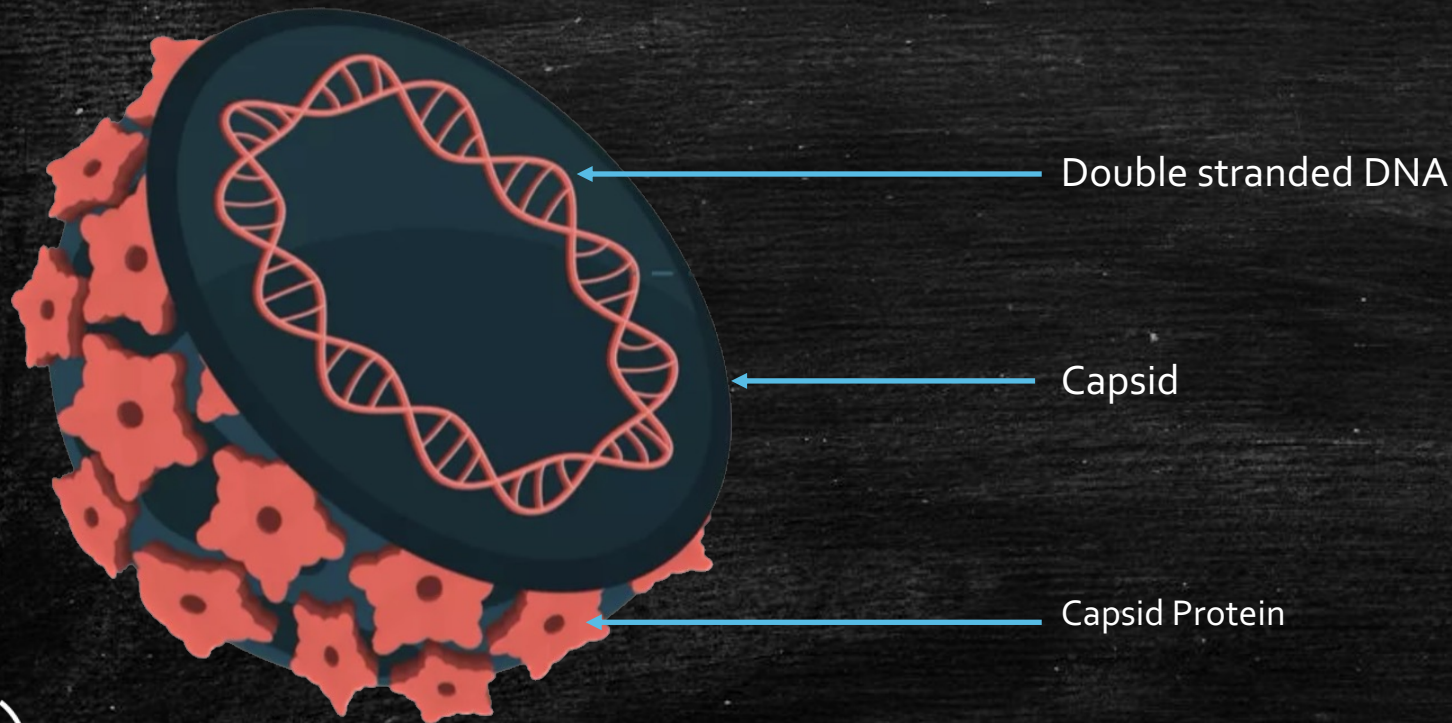
How do we identify a verruca?

How do we treat verrucaes?



# What is a Verruca?

A verruca is a benign lesion caused by the human papillomavirus (HPV). HPV is very common, 8 out of 10 people will be infected with it at some point in their life!

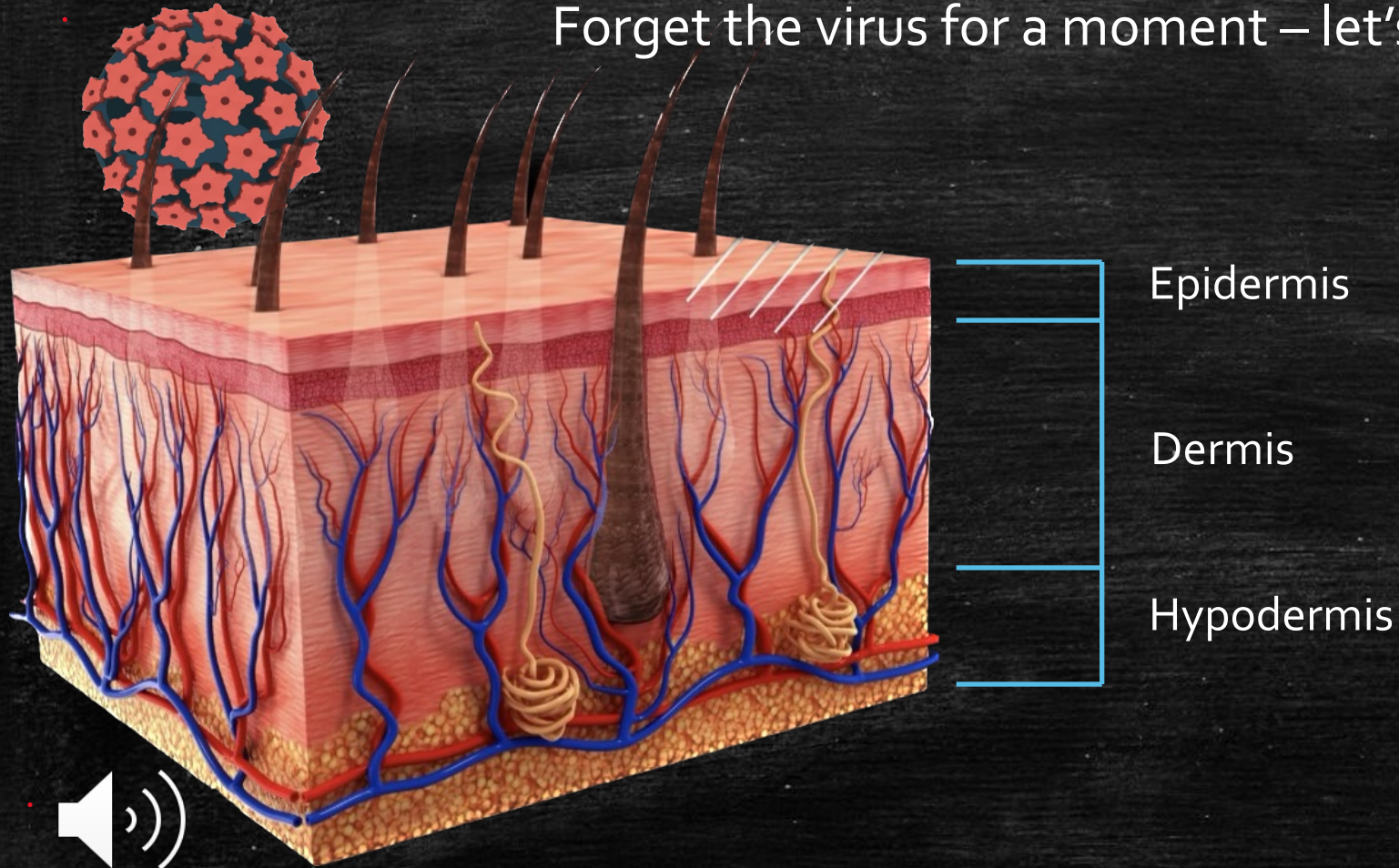


The sub types of HPV that are most common with the feet are 1, 2, 4 and 6. The virus itself has a double stranded DNA, a capsid shell and protein on the outside which helps the virus to dock with the plasma membrane of the host cell.



# How do we get verrucas?

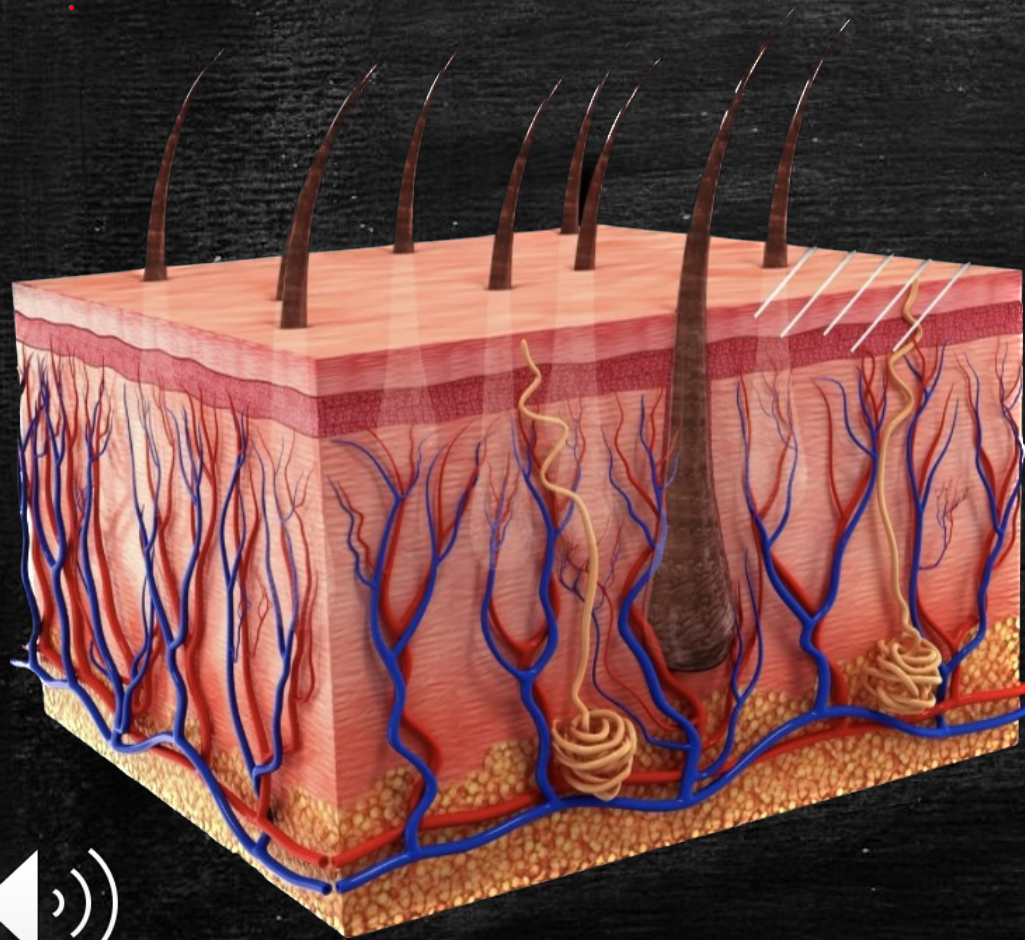
Forget the virus for a moment – let's look at the make up of our skin



In the epidermis there are no blood cells – remember this for later! There are some immune system cells though; Langerhans and T cells.



# How do we get verrucas?



Epidermis

Dermis

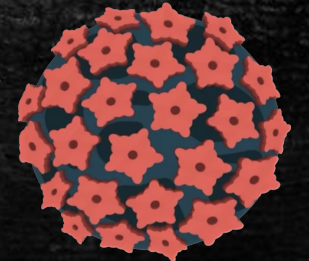
Hypodermis

Can we catch a verruca from a cut?

Unlikely – A cut usually bleeds and for this to happen it means it has breached the epidermis and caused trauma to the dermis – we know this as there is no vascular supply in the epidermis. If a verruca were to enter that cut it would be detected by the immune cells in the dermis and destroyed.

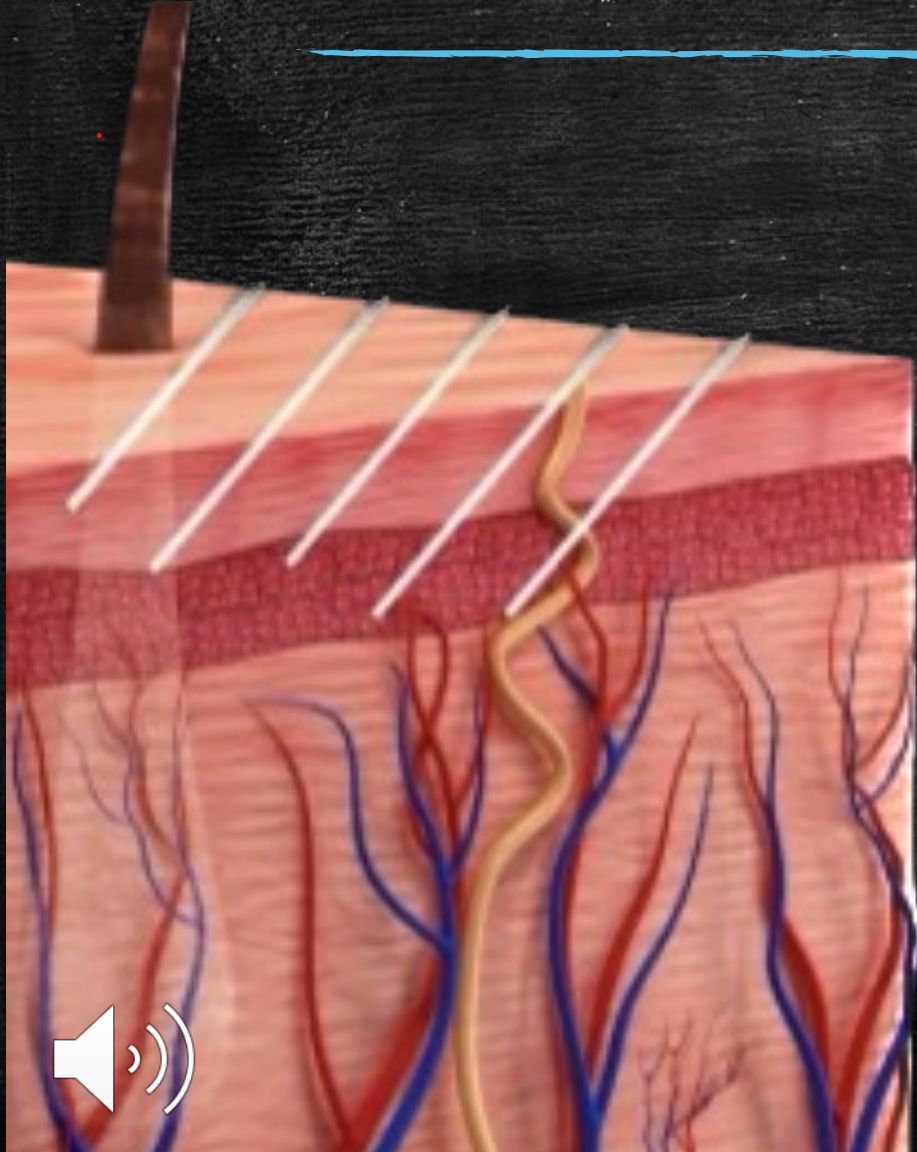
How do we get a verruca then?

Usually from a scratch or an abrasion that is confined to the epidermis, it allows the virus to enter the skin but doesn't have such an abundant supply of immune cells meaning it can likely hide there for some time without detection.

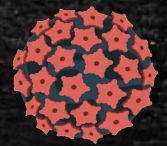


# How do we get verrucas?

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The basal layer is the deepest part of the epidermis, separating it from the dermis. The virus invades the keratinocytes (which are the executors of the re-epithelialization process – keratinocytes can migrate, proliferate and differentiate) and can lay dormant for weeks or months! Once the virus is active it begins to replicate and mature. This process produces prickle cells which alter the characteristics of the epidermis giving that verruca like appearance.



# How do we identify a verruca?

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Notice how the verruca has moved the dermatoglyphics (skin lines). The black dots are considered to be thrombosed capillaries.

HPV 1 – Large single lesion

HPV 2 – Mosaic verruca

HPV 4 – Multiple punctate lesions

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How do we treat it???

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“The good physician treats the disease; the great physician treats the patient who has the disease.”

Sir William Osler



# Do we need to treat it?

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What does the patient want?

Is the verruca causing pain?

How badly does the patient want it gone?

What's the patient's tissue viability like?

What's the patient's immune system like?

Does the patient have a high tolerance of pain?

Does the patient know what a verruca is, and that eventually left alone it will likely resolve itself!



# Where can we find more information???

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It's important when looking for information we use trusted sources to find the very best quality information available.

## Consider...

Systematic review or meta-analysis – These aim to summarize a substantial body of information.

Peer reviewed – This means the authors work has been subjected to scrutiny by other experts in the same field

The date – Look at when the work was published, quite often ideas considered as best practice at the time are superseded.

The sponsor – If a study on Verrucaes is sponsored by a company making a product for verrucaes its almost inevitable that there will be some bias.

## Be careful with...

Social media! There are some great groups where highly regarded practitioners dedicate some of their free time to advancing the profession, by sharing their experience however unfortunately there is a plethora of “fake news” misleading articles and hype designed to make you buy a defunct project.

## Avoid...

Unsubstantiated hearsay, wife's tales and anything else that sounds too good to be true. You don't have to look far to find someone saying a banana skin cured their verruca etc. Remember these two things, Verruca's can spontaneously resolve and so sometimes treatments can be a coincidence and secondly the effect of Chinese whispers – if you hearing it from the 10<sup>th</sup> person what did the message start as???

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