STI transmission via skin-to-skin contact? [1]

Dear Alice,

Skin-to-skin contact confuses me. Does the uninfected person have to have an opening in the skin for the virus to enter? Or can the simple act of the infected shedding skin touching the skin of the uninfected person transfer the virus? Also, if I keep an antiviral cream on my skin all the time, even in times when there are no symptoms, will that keep the shedding virus at bay and reduce the possibility of transmission?

Answer

Dear Reader,

Since your question was submitted via a reader response for the question Shedding light on viral shedding [2], you are most likely referring to skin-to-skin transmission in the context of herpes and other STIs. Information about STI transmission can be confusing, so kudos to you for seeking clarification. In general, most STIs are transmitted either through bodily fluids (such as semen, vaginal fluids, blood, breast milk, or saliva) or skin-to-skin contact. An uninfected individual doesn’t necessarily have to have an opening in the skin for transmission to occur via skin-to-skin contact. Many STIs can also be transmitted through mucous membranes, such as the mouth and lips, nostrils, eyelids, ears, anus, and parts of the genitals. Transmission is possible only when an infected person’s mucous membranes, bodily fluids, open lesions, or infected shedding skin cells come into contact with an uninfected person’s mucous membranes or open lesions. And yes, antiviral creams can decrease the chances that an infected person will transmit the herpes virus to her or his partner. If a person doesn’t have herpes, however, using an antiviral cream on her- or himself won’t prevent the possibility of contracting herpes from an infected partner. Antiviral creams and medicines are not intended for prophylactic use by uninfected individuals.

STIs spread by skin-to-skin contact include oral and genital herpes, HPV, and syphilis. Skin-to-skin contact occurs when an infected site of one individual’s skin (for example, the genitals of an individual with human papillomavirus, or HPV) come into direct contact with a mucous membrane or lesion on an uninfected person’s body. For example, if an HPV-infected shedding skin cell were to touch an uninfected person’s cut-and-scratch-free hand, the HPV virus would have no route of transmission? the hand is not a mucous membrane, nor does it have any open lesions. However, let’s say that the infected shedding skin cell were to make
contact with the mouth of an uninfected person (or any other mucous membrane or lesion on her or his body), transmission would be possible in that case.

Take note of one exception: molluscum contagiosum [3], a superficial skin disease than can be transmitted sexually and is therefore often classified as an STI, can be spread not only through the avenues mentioned above, but also through indirect contact. The small bumps that arise from molluscum contagiosum infection can inhabit any surface on the body, and there are documented cases of molluscum contagiosum transmission via wrestling, surgery, towel or sponge sharing, pool and gym equipment sharing, and sauna and communal bathroom use. Fortunately, molluscum contagiosum resolves naturally after 6 to 12 months.

To reduce your risk and protect yourself from STIs, consider the following:

- Ask your partner [4] about her or his sexual health. It doesn't have to be awkward? there are lots of ways [4] to approach this conversation. Consider getting tested together!
- Although oral and genital herpes and HPV are commonly spread when an infected person has no symptoms, the highest risk for transmission occurs when s/he experiences a flare-up. Avoid direct skin-to-skin contact during active outbreaks.
- Use barriers such as condoms and dental dams to prevent transmission through skin-to-skin contact.
- Wear protective clothing if you are a healthcare worker or athlete who is in physical contact with others' skin, mucous membranes, lesions, or bodily fluids on a regular basis.
- Consider getting Gardasil, the HPV vaccine [5]. This can help curb the spread of HPV and reduce risk for cervical cancer [8].
- To prevent spreading herpes through childbirth, women with genital herpes can take antiviral medication from 36 weeks into pregnancy until delivery.

For more information, take a look at the Sexually Transmitted Infections [7] section of the Go Ask Alice! archives. Hope this clears things up!

Alice!

Category:
Sexual & Reproductive Health [8]
Sexually Transmitted Infections (STI's) [9]
Genital Warts, HPV, & Condyloma [10]
Herpes [11]
Other STI's [12]

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Late stage syphilis [17]

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Medical Services (CUMC) [19]

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