

Some causes of itching

*From the Handbook of Dermatology & Venereology
Social Hygiene Handbook - 2nd Edition, PRURITUS by Dr. C.S. LEUNG*

External Causes

- 1) Climatic: low humidity eg due to cold weather or central heating may renders the skin brittle, and allows minor irritant such as soap to penetrate, causing mild inflammation and pruritus. The dry skin of the old aged causing itchiness is common
- 2) Foreign body eg glass fibre, hair; industrial exposure to powdered alumina or fibreglass
- 3) Chemical: some detergent (eg optical brighteners in certain washing powders) may cause pruritic dermatosis
- 4) Parasite contact or infestations: scabies or due to mites of pets etc. can cause marked pruritus
- 5) Excessive bathing

Skin Diseases

Pruritus is a feature of many of skin diseases. Some common skin diseases causing itchiness is listed as follows:

Scabies, Psoriasis, Insect bites, Seborrhoeic eczema, Contact dermatitis Fungal infection, Atopic eczema, Dry skin, Sunburn.

Systemic Causes

A wide variety of systemic disease can cause generalized pruritus without diagnostic skin lesions. The incidence of the association of generalized pruritus with significant internal disease is difficult to assess, but it has been estimated to range from 10-50%.

- 1) Infectious causes (including tropical and intestinal parasites)
Rubella; Varicella; HIV infection; Trichinosis, tapeworm infection; Schistosomiasis; Fungal infection; chicken pox
- 2) Endocrine disease such as Diabetes (usually localized such as itchiness of genitalia or perianal area due to candidiasis; and pruritus of scalp) , Hyperthyroidism, hypothyroidism (due to skin dryness), disorders of the parathyroid gland and Carcinoid syndrome
- 3) Hepatic disease such as Obstructive jaundice, biliary cirrhosis
- 4) Renal disease. Pruritus is common among patients with chronic renal failure. In patients on maintenance dialysis, over 80% are affected
- 5) Haematological diseases such as Polycythaemia, Iron deficiency: Iron deficiency has been often regarded as a cause for pruritus, or even in the absence of anemia. Hodgkin's Disease: (about 30% patients feel itchy)
- 6) Autoimmune diseases such as SLE, 'Sicca syndrome'
- 7) Neurological conditions such as Multiple sclerosis or Brain tumor (particularly itching inside the nose)
- 8) Psychiatric/Psychogenic Causes: Emotional stress and psychological trauma intensifies all form of pruritus and neurosis may be the cause for pruritus
- 9) Drugs or as a result of therapy: Pruritus can be a side effect of a wide variety of drugs

*To help in memorizing these systemic causes, the word **BLINKED** can be remembered*

B = **B**lood disease
L = **L**iver disease
I = **I**nfection, immunological or autoimmune disease
N = **N**eoplastic disease, **n**eurological disease
K = **K**idney disease
E = **E**ndocrine disease
D = **D**rug



ITCHING TO SCRATCH: Innovative nursing interventions for chronic itch

ABSTRACT

Most people experience itching from time to time. Sometimes there is no clear reason for the itching. Usually, the sensation goes away within a few seconds or after scratching. In some cases however, itching can persist for prolonged periods affecting people's quality of life. In this newsletter we consider the symptom of itching and suggest some innovative nursing interventions.

INTRODUCTION

Itch and the associated behaviour of scratching are major symptoms of many chronic conditions and treatments, and can have great impact on people's quality of life. Itch seems a highly common symptom because many people that we have researched with have identified overwhelming discomfort related to itch as a symptom of treatments for chronic conditions or chronic skin diseases. Many of us may also be affected by chronic skin conditions or have family and friends affected. This led to the research questions:

What are effective nursing interventions that may reduce itch?

How can nurses help people cope with itch?

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What is the issue?

Pruritus (itching) is an unpleasant sensation that elicits the desire to scratch. It is a distressing symptom that can cause discomfort and threaten the effectiveness of the skin as a major protective barrier. Because of the subjective nature of pruritus, the lack of a precise definition, pruritus is a disorder that has not been researched adequately.

Our skin is important. It comprises 15% of the body's total weight, and is the largest organ of the body. The skin has significant psychosocial and physical functions. Its function as a protective mechanism is the skin's most important role, but skin is also essential to maintain our body shape, act as a thermostat, disposing of bodily waste and is important in metabolic processes. Our skin is fundamental to self image and one's ability to touch and be touched, thereby providing an important component of communication. The skin is considered to be the body's main organ of sexual attraction.

Severe itching can disrupt a person's life. Sleep and other activities may be difficult. Scratching an itch around the genitalia or perianal area is considered socially unacceptable, can cause embarrassment and lead to social isolation. Scratching of itchy areas can cause damage to the skin and may result in skin infection. Other long-term effects are related to the cause such as cancers, liver disease, diabetes and renal failure. Itch should not be dismissed.

When people have chronic itch, it changes them physically because lesions may be visible, but also it may influence how they work, play, view themselves and interact with others. Donna, a participant in a research project shared what it was like to live with a chronic skin condition:

[I covered] the ugly red spots all over my arms and legs. I couldn't cope with all the stares and comments 'have the mozzies been at you love?' that people thoughtlessly made.

She also revealed how important it was for her feelings of self worth to hear her new partner say that he saw the person beyond her psoriasis:

I went out with a great-looking guy once. I asked him before we slept together if my spots bothered him. "What spots?" was his reply. I'll always love him for that. It was what I needed to hear so badly!

Rosa found that the way her work colleagues reacted to her only served to compound her feelings of 'being different' and disconnected:

I quickly learned who my true friends were. I wanted to wear a sign saying I was not contagious.

People have said that one of the most distressing symptoms of some chronic conditions and treatments is the itch. The natural response to an itch is to scratch which damages the skin further and can lead to secondary infection by bacteria. Itching followed by scratching can cause the skin to bleed, weep, ooze and split. People often find the pain of scratched skin easier to cope with than the itch itself. Sometimes there is no clear reason for the itch and in these situations the itch may be transient. Our focus however is how to help people cope with prolonged, chronic itch.

What is itch?

The answer is still not known but skin affected by some skin conditions release chemicals that stimulate the nerves and the nerves pass the itch sensation to the brain. Basically, itching is an irritating sensation in the skin that makes a person want to scratch. Itching does not appear to have a detectable physical form, but the most agonising pain has no detectable physical form either. No one argues that all pain is imaginary. It is thought that the same nerve fibres that carry pain carry the sensation of itching. Both pain and itching may have physical causes where the impact is aggravated by psychological factors. Itching itself is not contagious, however if the cause is an infection such as scabies or chickenpox, the underlying infection may be contagious.

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What does the literature say?

Pruritus is an uncomfortable skin sensation, commonly called itching. Most pruritus studies were about pruritus with skin rash or about pruritus connected to liver or renal failure. Randomised controlled trials about the treatment of pruritus were largely characterised by small sample sizes or were done with only men or women.

Itch is a major symptom of many chronic diseases (Yosipovitch et al. 2002) and is defined as a sensation that provokes the desire to scratch (Gupta et al. 1994). Scratching is a behavioural response to itch. Itching and scratching frequently lead to the vicious itch/scratch cycle that is present in most people with chronic skin conditions (Ehlers et al. 1995). The itch can be very distressing so that people may scratch themselves until they bleed. In the short term scratching may stop itching; however, the itch threshold seems to decrease when the skin starts to heal (Ehlers et al. 1995). Scratching also leads to a greater secretion of inflammatory mediators that exacerbate the itching and reinforce the cycle (Yosipovitch and David 1999). People report sleep disturbances, agitation, having depressive complaints and concentration problems related to chronic itch (Yosipovitch et al. 2000, Yosipovitch et al. 2002). Prolonged itching can result in changed sexual functioning and changed eating habits (Yosipovitch et al. 2000). The continuous cycle of itching and scratching and the resulting physical disfigurement may lead to feelings of shame and may diminish self esteem and even cause family friction (Koblenzer 1999).

Pruritic skin diseases are thought to have a greater impact on quality of life than other skin diseases (Harlow et al. 2000). A cycle of itch and depression can result for people coping with itch over a long period. In general, patients with itch associated with chronic diseases have limited possibilities of influencing the course of the disease (Stangier et al. 2003), which may give rise to feelings of helplessness and lack of control, which in turn can lead to depressive reactions. Ineffective coping strategies may increase the intensity of itching (Stangier and Ehlers 2000). Research regarding the effectiveness of interventions for pruritus is needed.

How can District Nurses intervene to assist people with chronic itch?

What does scratching do to the skin?

Scratching makes the skin red and then produces a rash. Scratching the skin can break and bleed bringing a risk of infection.

As broken skin heals it begins to itch again triggering the itch-scratch cycle.

What are some questions to ask about itch?

Ask the person questions to learn more about the nature of the itching. These may include:

- When did the itching start?
- Where is the itching located? Is it focused in one spot or all over the body?
- Is the itching constant or does it come and go?
- Have any friends, relatives, or other close contacts had itching recently?
- What medications, herbs, or illegal drugs, if any, is the person taking? Itching may be an early symptom that the person is having an allergic reaction
- What other medical conditions does the person have?
- Is there anything makes the itching worse or better, such as a particular season or a specific type of soap?
- Are there other symptoms such as a skin rash, fever, weight loss, or runny nose that accompany the itching? (May be symptoms of another condition such as allergy, cancers, infection, liver disease, diabetes, multiple sclerosis, hypothyroidism)

Severe itching can disrupt a person's life. Sleep and other activities may be difficult. Scratching of itchy areas can cause damage to the skin and may result in skin infection. Other long-term effects are related to the cause.

Questions about other events may also be considered. For example, if a person has genital or perianal itching, information about his or her sexual activity may be important.

Nursing interventions for helping people cope with itch

The first step in treating any itch should be a comprehensive medical evaluation. If the person has not sought medical attention for the itch, then encourage them to do so. Itch may be a symptom of an underlying condition and diagnosis with a view to possible treatment is important (refer to back page of this newsletter).

The question uppermost in the mind of most itchy people is a simple one: "How can I make it go away?" A medical doctor or allergist may discover "trigger factors" in the person's diet and environment and encourage the person to minimise or eliminate them. They may be advised to wear different clothes or wash clothes in a different detergent and avoid certain foods and chemicals. If there is an underlying disease such as diabetes, assessment by a medical doctor is profoundly important.

Beyond that, medical care simply aims to reduce the itch itself. Anti-itch baths and tar ointments suppress inflammation and lubricate the skin; antihistamines relieve some itching by breaking the biochemical chain. Corticosteroids are frequently used to reduce the inflammation that intensifies itching. (Mild forms of these creams are now available over the counter.) If itch is due to parasitic infection then the parasite needs to be treated and removed. If pruritus is been associated with localized fungal infection then fungal products may be warranted. Nappy rash products may also help alleviate itch.

What can District Nurses do to help someone with itch?

- Don't dismiss itching. Listen to the person and affirm their experiences
- Suggest prompt medical assessment
- Encourage the person to use lots of emollient (a special moisturiser). The dryer the skin the more likely it is to itch. Keeping it moist and supple helps to reduce irritation. Suggest the use of products that are mild and do not have perfume. The chemicals that are responsible for fragrances may further irritate skin.
- Encourage the person to drink plenty of fluids to keep their body well hydrated (unless contraindicated). Dehydration will cause their skin to dry out and become more itchy

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- Always apply emollients in smooth downward strokes in the direction of hair growth to reduce the risk of infecting hair follicles. Do not rub the emollient as this can make itching worse and increase the temptation to scratch

- Encourage the person to keep nails short and make sure there are no jagged edges. Cotton gloves or mittens worn at night might reduce the impact of scratching during sleep

- Suggest warm (not hot) baths rather than showers using lots of medicated bath oil. After washing and bathing pat the skin dry with a soft towel and apply liberal amounts of emollient while the skin is still warm and slightly damp

- Massage with an ice cube over the area that itches. Application of a cool washcloth or ice over the site may be useful. Firm pressure at the site of itching, at a site contralateral to the site of itching, and at acupressure points may break the neural pathway. Gentle rubbing, pressure, and vibration can be used to relieve itching

- Suggest to the person that when they get the urge to scratch that they clench their fists tightly and hold that position for 30 seconds. This gives them time to consider their actions and hopefully divert attention from automatically scratching

- The type of underclothing people wear may matter too. Cotton undergarments are preferable to nylon. Tight underwear may aggravate skin conditions. Chemicals used in permanent press fabrics have been shown to irritate the skin. Washing new clothes before wearing them may help.

What can make itching worse?

- Fluid loss secondary to fever, diarrhoea, nausea and vomiting, or decreased fluid intake

- Use of certain ointments (eg, petroleum, mineral oil)

- Bathing with hot water

- Use of soaps that contain detergents

- Frequent bathing or bathing for longer than 1/2 hour

- Genital deodorants or bubble baths

- Dry environments

- Sheets and clothing laundered with detergent

- Tight restrictive clothing or clothing made of wool, synthetics, or other harsh fabric

- Use of opium alkaloids, morphine, and antibiotics

- Perfumed underarm deodorants or antiperspirants

- Temperature changes, sweating, some clothing and irritant substances such as the house dust mite, soaps and detergents

- Stressful situations and emotions can exacerbate itching and, for children in particular, tiredness can make it worse

Conclusion

People can experience profound disruption to their lives as a consequence of itch and associated skin lesions. People with skin conditions can live with a cycle of itching and scratching throughout the day and night. Scratching the itch brings tremendous relief and can often seem worth the agony and soreness that will follow. People are often told 'don't scratch' yet itch can be much worse than the itch from a mosquito bite or chicken pox. People say it is impossible not to scratch.

Itch can affect sleep, school, work and social life. Whilst it will rarely be the reason that District Nurses visit a person, chronic itch may be revealed during holistic assessment. District Nurses have a significant support and treatment role to play in the lives of people with chronic itch. Itch as a symptom should not be dismissed and people should be encouraged to seek medical assessment. Alternatives to scratching that have been suggested in this newsletter for the relief of pruritus can help people to interrupt the itch-scratch-itch cycle.

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