

## Various Modes of Ayurvedic & Allopathic Preparation and Treatment for Skin Disorders

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**Abstract:** -Skin diseases are numerous and a frequently occurring health problem affecting all ages from the neonates to the elderly and cause harm in number of ways.

Maintaining healthy skin is important for a healthy body many people may develop skin diseases like acne, hives, ringworm, eczema, measles and chickenpox that affect the skin including cancer herpes and cellulites. Some wild plants and their part (Neem, Tulsi and Aloe vera etc) are frequently used to treat these diseases. The use of plant is as old as the mankind. Natural treatment its chief and claimed to be safe it is also suitable raw material for production of new synthetic agents like accutane and doxycycline.

A review of some plants for the treatment of skin diseases is provided that summarises the recent technical therapies like Light Therapy, Chemical peel and Steroid injection that have taken places in this area during the past several years.

**Keywords:** - Neonates, Herbs, Medicinal plant, skin diseases

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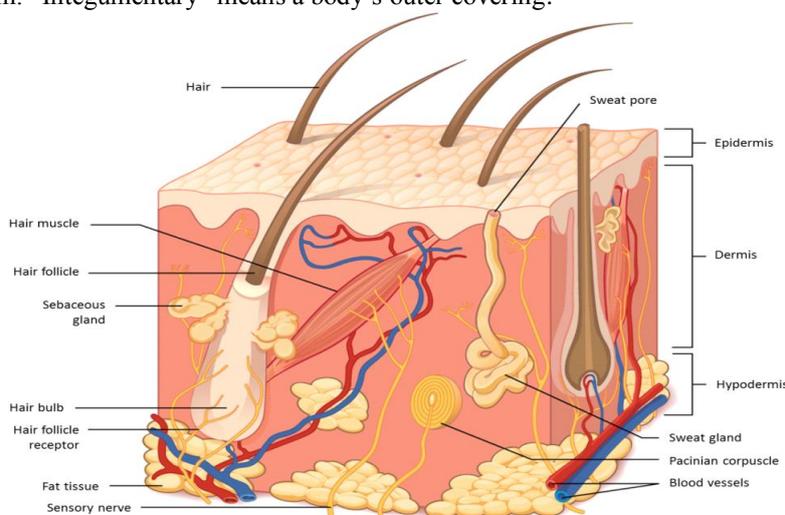
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### **Skin**

As the body's largest organ, skin protects against germs, regulates body temperature and enables touch (tactile) sensations. The skin's main layers include the epidermis, dermis and hypodermis and is prone to many problems, including skin cancer, acne, wrinkles and rashes.

Our skin is made of water, protein, fats and minerals. The skin protects your body from germs and regulates body temperature. Nerves in the skin help you feel sensations like hot and cold.

Our skin, along with our hair, nails, oil glands and sweat glands, is part of the integumentary (in-TEG-you-MENT-a-ree) system. "Integumentary" means a body's outer covering.



### **Layers of the skin**

Three layers of tissue make up the skin:

- **Epidermis**, the top layer.
- **Dermis**, the middle layer.
- **Hypodermis**, the bottom or fatty layer.

Disorders of skin -

- |                          |                        |
|--------------------------|------------------------|
| 1. Acne                  | 11. Melanoma           |
| 2. Hives                 | 12. Lupus              |
| 3. Actinic keratosis     | 13. Contact dermatitis |
| 4. Rosacea               | 14. Wart               |
| 5. Vitiligo              | 15. Chicken pox        |
| 6. Carbuncle             | 16. Ringworm           |
| 7. Latex allergy         | 17. Melasma            |
| 8. Eczema                | 18. Measles            |
| 9. Psoriasis             | 19. Cellulitis         |
| 10. Basal cell carcinoma | 20. Keratosis pilaris  |

And many more.....

**Some major disorder of skin are given below:-**

- Acne
- Ringworm
- Measles
- Hives
- Chicken pox
- Eczema

**1. Acne :-**

Acne, also known as *acne vulgaris*, is a long-term skin condition that occurs when dead skin cells and oil from the skin clog hair follicles.<sup>[3]</sup> Typical features of the condition include blackheads or whiteheads, pimples, oily skin, and possible scarring.<sup>[5]</sup> It primarily affects skin with a relatively high number of oil glands, including the face, upper part of the chest, and back.<sup>[14]</sup> The resulting appearance can lead to anxiety, reduced self-esteem, and, in extreme cases, depression or thoughts of suicide. Susceptibility to acne is primarily genetic in 80% of cases.<sup>[4]</sup> The role of diet and cigarette smoking in the condition is unclear, and neither cleanliness nor exposure to sunlight appears to play a part.<sup>[16]</sup> In both sexes, hormones called androgens appear to be part of the underlying mechanism, by causing increased production of sebum.<sup>[5]</sup> Another common factor is the excessive growth of the bacterium *Cutibacterium acnes*, which is present on the skin.<sup>[17]</sup>



Treatments for acne are available, including lifestyle changes, medications, and medical procedures. Eating fewer simple carbohydrates such as sugar may minimize the condition.<sup>[9]</sup> Treatments applied directly to the affected skin, such as azelaic acid, benzoyl peroxide, and salicylic acid, are commonly used.<sup>[10]</sup> Antibiotics and retinoids are available .

**Treatment:- Treatment by Allopathy medicines**

Sr no	Drug name	Category of drug	Dose	Mode of action	Uses	Remarks
1	Doxycycline	Tetracycline antibiotics	100mg	Doxycycline inhibits bacterial protein synthesis by binding to the 30S ribosomal subunit.	Doxycycline is an antibiotic. It's used to treat infections such as chest infections, skin infections, rosacea, dental infections and sexually transmitted infections	Used to treat acne and skin infections
2	Spironolactone	Aldosterone receptor	25mg	acting primarily through competitive binding of	Treat high blood pressure and heart failure	For treating hypertension

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		antagonists		receptors at the aldosterone-dependent sodium-potassium exchange site		
3	Minocycline	Tetracycline antibiotics	45mg per day	Attaching to the bacterial 30S ribosomal subunit	Minocycline is used to treat infections caused by bacteria	Infection caused by bacteria
4	Accutane	Anti cancer chemotherapy drug	0.5to1mg per day	Inhibits sebaceous gland function	To treat severe cystic acne	For acne
5	Aldactone	As a diuretics	25 to100mg	Binding of receptors at the aldosterone	To treat symptom high blood pressure, acne	For treatment of heart failure

• **Ayurvedic medicine treating Acne disorder**

Sr no	Plant name	Family/ Common name	Chemical constituent	Plant part	Uses	Remark
1	<i>Mentha piperita</i> 	Lamiaceae / Mentha	Limonene, cineole, menthone, menthofuran, isimenthone, menthyl acetate, menthol	Leaves	Help in reducing acne scars	Prevent inflammation and cure acne
2	<i>Apis mellifera</i> 	Apidae/ Honey	Glucose, sugar and fructose	Sugary substance	Raw honey helps balance the bacteria on your skin	For removing acne from skin
3	<i>Azadirachta indica</i> 	Meliaceae/ Neem	Nimbinolin, nimbin, nimbidol, sodium nimbinate	Leaves	Used in fighting acne causing bacteria	For treatment and prevention of acne
4	<i>Carica Papaya</i> 	Caricaceae / Pawpaw	Vitamin A, B, C, carbohydrates, protein, alkaloids, proteolytic enzymes	Leaves	Used for moisturizing the skin	Used topically as an exfoliant to remove dead skin cells
5	<i>Ocimum tenuiflorum</i> 	Lamiaceae / Tulsi	Oleonic acid, Ursolic acid, Rosmarinic acid	Leaves	Tulsi benefits the skin by preventing blackheads, acne	For treating acne, banishes dandruff

**Diet Chart for Acne Vulgaris/Pimples**

**Early Morning:** Drink Lukewarm water 1-2 glass in empty stomach, before brushing teeth, drink Amla +Aloe vera juice before breakfast

**Diet Plan:**

TIMING	DIET PLAN (VEGETARIAN)
Breakfast (08:30 AM)	1 cup herbal tea , 2-3 fibre biscuit/ less salted daliya/ poha/ upma(sujji)/ 2 thin roti/+ 1 bowl vegetable, 1 plate fruit salad(Apple, Pomegranate, and papaya)
Lunch (12:30-01:30 PM)	2-3 thin chapati/roti +1 cup rice+ 1 bowl green vegetables (boiled) +1 bowl moong daal(diluted with water) +1 plate salad
Snacks (5:30-6:00 PM)	1 cup herbal tea + 2-3 biscuits /1 bowl vegetable soup
Dinner (7:00 PM -8:00 PM)	2-3 thin chapati / roti +veg soup 1 bowl green vegetables (mostly fibre rich) + 1 bowl Green gram (moong daal) (diluted with water)

### **Do's**

**Cereals :** Old rice ,wheat ,barley

**Pulses:** Pigeon pea (arahar), Green gram (Moong dal)

**Fruits and vegetables:** Drum stick (sigru), Pointed gourd (paraval), bitter gourd(karela),bottle gourd(lauki), ridge gourd (traoi), Indian round gourd(tinda), Nimba (Lemon) Amalki (Amla).

**Others:** Bitter dietary substances, like dry ginger, ginger, ajawan, fennel ,black pepper,rock salt,hingu, garlic, cumin ,old ghee,mustard oil, sesame oil, nimba oil, cow's urine , luke warm water, honey.

**Life style:**

**Yoga Pranayam and meditation:** 1. Bhastrika 2. Kapaalbhati 3. Bahyapranayam 4. Anulum Vilom 5. Bhramari 6.Udgeeth 7. Ujjaayi 8. Pravan jap

**Asanas:** 1. Light source 2. Pashchimottanasana 3. Sarvangasana 4. Halasana 5.Marktasana

**Don'ts :**

**Cereals:** new rice , maida, fresh cereals.

**Pulses:** Pea (matar), chickpea (kabuli- chana), Black gram (Kale vale deshi channa)

**Fruits and vegetables:** Potato and other tuber, radish

**Others:** Fresh cereals, heavy cold, oily diets, food causing burning sensation and acidity with poor digestion And obstructing channels, sesame, honey,salt,sour, jaggery, alcohol, milk, cold water, dry food

**Incompatible food:**e.g. Milk +fish

**Strictly Avoidable:**oil spicy food, non-veg and non veg soup,ghee, excess salt, cold drink, bakery Product, alcohol, fast food, pickles

**Life style:** adhyasana (repetition of food intake after meals, within 1-2 hours repeating), excessive exercise and anger, fear, worry, cloudy weather cold water, eastern wind, excessive intake of food, day sleeping,and suppression of natural urges.

**Yoga Pranayam meditation:** As per doctor advice

**Asanas:** As per doctor advice

**Advice:** 1 cup herbal tea is issued or consumed by the patients, in case if he/she is habitual of tea and Coffee

**Do as regular: Thanks God for food**

- Get up with the sunrise.
- Brush the teeth twice a day in the morning and before going to bed.
- Scrape the tongue daily.
- Meditate and do yoga.
- Eat fresh light warm food slowly, in peaceful place with silent, positive and happy mind.
- Eat 3-4 times at regular time in a day . Don't skip meals and avoid overeating fast once a week.
- Chew food properly and slowly. Walk 3-5 minutes after taking food.
- Take a short walk after meal and sleep at proper time in night [9-10 PM].

### **2. Ringworm :-**

Ringworm, also known as dermatophytosis, dermatophyte infection, or tinea, is a fungal infection of the skin. "Ringworm" is a misnomer, since a fungus, not a worm, causes the infection. The lesion caused by this infection resembles a worm in the shape of a ring — hence the name.[24] Ringworm is usually specifically used to describe tinea corporis (ringworm of the body), although it can sometimes be used to describe tinea infection in other locations, such as tinea cruris (ringworm of the groin).[30] Ringworm infection can affect both humans and animals[29][30]. The infection initially appears as red patches on affected areas of the skin and later may spread to other parts of the body[25][26][27]. It may affect the scalp, feet, nails, groin, beard, or other areas[18].



**Treatment of disorder:-**

**Allopathic medicine treating ringworm**

Sr no	Drug name	Category of drug	Dose	Mode of action	Uses	Remark
1	Lamisil	Antifungal	250 mg per day	Fungicidal against many fungi	For ringworm ,jock itch	To treat jock itch
2	Lotrisone	Antifungal	15 mg	Inhibit 14demethylation of lanosterol	For fungal infection such as jock itch ,ringworm	To treat fungal infection of feet and hands
3	Econazole	Antifungal	50 mg per day	Inhibit fungal cytochrome	For treating ringworm ,jock itch	To treat ringworm
4	Clotrimazole	Antifungal	250mg per day	Damaging the permeability barrier in fungal cytoplasmic membrane	For treating ringworm,jock itch,candidiasis	To treat ringworm
5	ketoconazole	Antifungal	200-400mg per day	Preventing the synthesis of ergosterol	For treating ringworm,seborrhea	To treat seborrheic dermatitis

**Ayurvedic medicine treating ringworm**

sr no	Plant name	Family/Common name	Chemical constituent	Plant part	Uses	Remark
1	<i>Allium sativum Linn</i> 	Amaryllidaceae / Garlic	Alkaloids ,tannin,,Carotenoids, saponin,, flavonoids	Bulb of garlic plant	Help in reducing cholesterol level	For treatment of ringworm
2	<i>Aloe barbadensis</i> 	Asphodelaceae/ Aloe vera	Water,vitamins,minerals,enzymes,polysaccharides	Root and leaves	Improve digestive health	For treatment of acne and ringworm
3	<i>Cocos nucifera L</i> 	Arecaceae/ Cocos nucifera	Caprylic acid, lauric acid, myristic acid, palmitic acid, stearic acid	Fruit	Help in treating ringworm	For skin acne
4	<i>Barbados</i> 	Rutaceae/ Grapefruit	Water,carbohydrates, protein, fat	Fruit	Help in treating fungal infection of skin like ringworm	For all skin related disorders
5	<i>Curcuma longa linn</i> 	Zingiberaceae/ Haldi	Curcumin, volatile oil ,mould	Root	Help in reducing ringworm infection	Mainly used for boost healing
6	<i>Citrus limonis</i> 	Rutaceae/ Lemon oil	Limonene,linolool, terpineol, linalyl acetate	Fruit	For treating fungal skin infection like ringworm ,acne	Mainly used in ringworm infection

**Therapies**

For some people, the following therapies might be helpful, either alone or in combination with medications.

- **Light therapy.** A variety of light-based therapies have been tried with some success. Most will require multiple visits to your doctor's office[22]. Further study is needed to determine the ideal method, light source and dose.
- **Chemical peel.** This procedure uses repeated applications of a chemical solution, such as salicylic acid, glycolic acid or retinoic acid. This treatment is for mild acne. It might improve the appearance of the skin, though the change is not long lasting and repeat treatments are usually needed[20].
- **Drainage and extraction.** Your doctor may use special tools to gently remove whiteheads and blackheads (comedos) or cysts that haven't cleared up with topical medications[30]. This technique temporarily improves the appearance of your skin, but it might also cause scarring.
- **Steroid injection.** Nodular and cystic lesions can be treated by injecting a steroid drug into them. This therapy has resulted in rapid improvement and decreased pain. Side effects may include skin thinning and discoloration in the treated area.[29]

### 3. Measles

**Measles** is a highly contagious infectious disease caused by measles virus.<sup>[41][33][42]</sup> Symptoms usually develop 10–12 days after exposure to an infected person and last 7–10 days.<sup>[37][38]</sup> Initial symptoms typically include fever, often greater than 40 °C (104 °F), cough, runny nose, and inflamed eyes.<sup>[33][34]</sup> Small white spots known as Koplik's spots may form inside the mouth two or three days after the start of symptoms.<sup>[4]</sup> A red, flat rash which usually starts on the face and then spreads to the rest of the body typically begins three to five days after the start of symptoms.<sup>[34]</sup> Common complications include diarrhea (in 8% of cases), middle ear infection (7%), and pneumonia (6%).<sup>[35]</sup> These occur in part due to measles-induced immunosuppression.<sup>[36]</sup> Less commonly seizures, blindness, or inflammation of the brain may occur.<sup>[35][37]</sup> Other names include *morbilli*, *rubeola*, *red measles*, and *English measles*.<sup>[31][32]</sup> Both rubella, also known as *German measles*, and roseola are different diseases caused by unrelated viruses.<sup>[43]</sup>



Measles is an airborne disease which spreads easily from one person to the next through the coughs and sneezes of infected people.<sup>[37]</sup> It may also be spread through direct contact with mouth or nasal secretions.<sup>[43]</sup> It is extremely contagious: nine out of ten people who are not immune and share living space with an infected person will be infected.<sup>[35]</sup> Furthermore, measles's reproductive number estimates vary beyond the frequently cited range of 12 to 18.<sup>[42]</sup> The NIH quote this 2017 paper saying: "[a] review in 2017 identified feasible measles R<sub>0</sub> values of 3.7–203.3".<sup>[41]</sup> People are infectious to others from four days before to four days after the start of the rash.<sup>[35]</sup> While often regarded as a childhood illness, it can affect people of any age.<sup>[47]</sup> Most people do not get the disease more than once.<sup>[40]</sup> Testing for the measles virus in suspected cases is important for public health efforts.<sup>[35]</sup> Measles is not known to occur in other animals.

### Treatment

#### Allopathic medicines treating Measles:-

Sr no	Drug name	Category of drug	dose	Mode of action	Uses	Remark
1	Acetaminophen	Analgesic	12.5 mg	Central analgesic efficacy	To relieve mild to moderate pain from headache	Mild to moderate fever
2	Ibuprofen	Non steroidal anti	800 mg	The synthesis of prostaglandin via the	To relief pain from headache, dental	To relief from headache

		inflammatory drugs		the arachidonic acid	pain	
3	Naproxen sodium	Non steroidal anti inflammatory drugs	1500 mg	Reducing the level of prostaglandin	To reduce inflammation and pain	For inflammation
4	Tresivac	analgesic	0.5 ml	Stimulates the immune system to act as microorganism	To prevent measles, mumps and rubella	To prevent from measles

#### Ayurvedic Medicines treating Measles:-

Sr no	Plant name	Family/ Common name	Chemical constituent	Plant part	Uses	Remark
1	<i>Ocimum sanctum</i> L and <i>ocimum basilium</i> L 	Lamiaceae/ Tulsi	Oleanolic acid, ursolic acid, rosmarinic acid, eugenol, carvacrol, linalool	leaves	Used for treatment of acne as well as for treatment of measles	For Treatment of measles
2	<i>Azadirachta indica</i> 	Meliaceae/ Neem	Nimbolin, nimbin, nimbidol, sodium nimbinat	leaves	Treat dry skin, treat acne	For treatment of measles
3	<i>Tinospora Cordifolia</i> 	Menispermaceae/ Giloy	Alkaloids, glycosides, steroids,	leaves	For treatment of fever, diabetes	For treatment of measles
4	<i>Emblica officinalis</i> 	Phyllanthaceae/ Amla	Gallic acid, ellagic acid, emblicanin A and B, ascorbic acid	Fruit pulp	Used for good skin tone	For removing of dead skin cells
5	<i>Berberis aristata</i> 	Berberidaceae/ Daruhaldi	Berberine, berbamine, berlambine, berbini, columbine, oxyberberine, magnoflorine	root	Help in removing acne scarring	For removing of wounds, infections, colds and liver disease

#### 4. Chicken pox

**Chickenpox**, also known as **varicella**, is a highly contagious disease caused by the initial infection with varicella zoster virus (VZV).<sup>[47]</sup> The disease results in a characteristic skin rash that forms small, itchy blisters, which eventually scab over.<sup>[45]</sup> It usually starts on the chest, back, and face.<sup>[45]</sup> It then spreads to the rest of the body.<sup>[45]</sup> The rash and other symptoms, such as fever, tiredness, and headaches, usually last five to seven days.<sup>[45]</sup> Complications may occasionally include pneumonia, inflammation of the brain, and bacterial skin infections.<sup>[51]</sup> The disease is usually more severe in adults than in children.<sup>[52]</sup>



Chickenpox is an airborne disease which spreads easily from one person to the next through the coughs and sneezes of an infected person.<sup>[49]</sup> The incubation period is 10 to 21 days, after which the characteristic rash appears.<sup>[46]</sup> It may be spread from one to two days before the rash appears until all lesions have crusted over.<sup>[49]</sup> It may also spread through contact with the blisters.<sup>[49]</sup> Those with shingles may spread chickenpox to those who are not immune through contact with the blisters.<sup>[49]</sup> The disease can usually be diagnosed based on the presenting symptom;<sup>[53]</sup> however, in unusual cases it may be confirmed by polymerase chain reaction (PCR) testing of the blister fluid or scabs.<sup>[52]</sup> Testing for antibodies may be done to determine if a person is immune.<sup>[52]</sup> People usually only get chickenpox once.<sup>[49]</sup> Although reinfections by the virus occur, these reinfections usually do not cause any symptoms.

#### Allopathic medicine treating chicken pox-

Sr n	Drug name	Category of drug	Dose	Mode of action	Uses	Remark
1	Acyclovir	Synthetic nucleoside analogues	200 mg	Acyclovir is converted to its triphosphate	Decrease pain and speed the healing of sores	Human small pox
2	Loratadine	Antihistamine	10 mg	Prevent activation of cells with H1 receptor by histamine	Temporarily relieve the symptoms of hay fever	Hay fever
3	Tecovirimat	antiviral	600mg	Inhibits the function of a major envelope protein required for the production of extracellular	For treatment of chickenpox	Human small pox

#### Ayurvedic medicines for treating chicken pox-

Sr no	Plant name	Family name/Common name	Chemical constituent	Plant part	uses	Remark
1	<i>Aloe barbadensis</i> 	Liliaceae/ Aloe vera	Vitamins, minerals, enzymes, polysaccharides	Root, leaves, and flowers	Improves digestive health	Promote oral health
2	<i>Apis mellifera</i> 	Apidae/Honey	Glucose, sugar and fructose	-	Improves memory	For diabetes
3	<i>Psidium guajava</i> 	Myrtaceae /guava leaves	Phenolic, isoflavonoids	Leaves	Used for stomach pain	May boost hair health
4	<i>Azadirachta indica</i>	Meliaceae/Neem	Nimbolinin, nimbin, nimbidol, sodium nimbinatate	Leaves	Used for leprosy, eye	For leprosy



**5. Hives Urticaria:-**

**Hives**, also known as **urticaria**, is a kind of skin rash with red, raised, itchy bumps.<sup>[56]</sup> They may also burn or sting.<sup>[57]</sup> Often the patches of rash move around.<sup>[57]</sup> Typically they last a few days and do not leave any long-lasting skin changes.<sup>[77]</sup> Fewer than 5% of cases last for more than six weeks.<sup>[57]</sup> The condition frequently recurs.<sup>[75]</sup>

Hives frequently occur following an infection or as a result of an allergic reaction such as to medication, insect bites, or food.<sup>[57]</sup> Psychological stress, cold temperature, or vibration may also be a trigger.<sup>[56][60]</sup> In half of cases the cause remains unknown.<sup>[57]</sup> Risk factors include having conditions such as hay fever or asthma.<sup>[58]</sup> Diagnosis is typically based on the appearance.<sup>[69]</sup> Patch testing may be useful to determine the allergy.<sup>[66]</sup>

Prevention is by avoiding whatever it is that causes the condition.<sup>[67]</sup> Treatment is typically with antihistamines such as diphenhydramine and ranitidine.<sup>[57]</sup> In severe cases, corticosteroids or leukotriene inhibitors may also be used.<sup>[71]</sup> Keeping the environmental temperature cool is also useful.<sup>[70]</sup> For cases that last more than six weeks immunosuppressants such as ciclosporin may be used.<sup>[57]</sup>

About 20% of people are affected.<sup>[74]</sup> Cases of short duration occur equally in males and females while cases of long duration are more common in females.<sup>[59]</sup> Cases of short duration are more common among children while cases of long duration are more common among those who are middle aged.<sup>[76]</sup> Hives have been described at least since the time of Hippocrates.<sup>[59]</sup> The term urticaria is from the Latin *urtica* meaning "nettle".<sup>[5]</sup>



**Classification of Hives/Urticaria**

**Acute Urticaria**

- It develops suddenly and last less than six weeks.
- Cause will be- Respiratory allergens, food allergens, Psychological factor, and any infection or medication

**Chronic Urticaria**

- It occurs in very few cases and rashes persist more than six weeks or months or years.
- Cause will be- Hereditary, Autoimmune and Idiopathic

**Classification of Urticaria/Hives as per Ayurveda**

Sheetpitta, Udard and Kotha are explained separately in Ayurveda.

Sheetpitta is also called as Udard, kotha, and Utkotha.

**Sheetpitta**

Vata Dominance, Tod (picking sensation), Vidah (Burning sensation).

**Kotha**

Raktadushti, Vidah (burning sensation).

**Udard**

Kapha Dominance, Kandu (itching), Vidah (burning sensation).

**Utkotha**

Recurrence of Kotha again and again

Treatment

Allopathic medicine for treating hives/Urticaria:-

Sr no	Drug name	Category of drug	dose	Mode of action	Uses	Remarks
1	Allegra	antihistamines	180mg	To selectively antagonize h1 receptor on the surface	Symptom of seasonal allergies	For itching skin
2	Alavert	antihistamine	20mg	Prevent activation of cells with H1 receptors	Hay fever allergies	For nose itching
3	xyzal	antihistamine	2.5 mg	Orally active and selective H1 receptor antagonist	Hay fever	Symptom of hives
4	Xolair	Monoclonal antibodies	Less than 150mg	Inhibits the binding of IGE	Treat moderate severe asthma	For skin itching
5	Doxepin	Tricyclic antidepressants	25to 300mg	Increase concentration	Treat depression and anxiety	To treat insomnia

Ayurvedic medicines for treating hives:-

S R no	Plant name	Family name/Common name	Chemical constituent	Plant part	Uses	Remark
1	<i>Ocimum sanctum L and ocimum basilium L</i> 	Lamiaceae/Tulsi	Oleanolic acid, ursolic acid, rosmarinic acid, linalool	leaves	Used for treatment of hives and as anti allergic	Used as anti aging
2	<i>curcuma longa linn</i> 	Zingiberaceae/Haldi	Curcuma, demethoxycurcumin, volatile oils (tumerone, atlantone, zingiberene)	Stem	Used for the internal purification of the body	Used to improve heart health
3	<i>azadirachta linn</i> 	Meliaceae/Neem	Nimbolinin, nimbin, nimbidol, sodium nimbinat	Leaves	Used for the cooling of the body	Used to treat leprosy
4	<i>Withania somnifera</i> 	Solanaceae/Ashwagandha	Alkaloids, steroidal lactone, saponins, and withanolides	Root and fruits	Used for improving body defense and allergic rhinitis	Used to reduce blood sugar level
5	<i>Albizia lebeck</i> 	Leguminosae/Charas	Saponins (labbeekanins and sapogenins), tannins, gums, and acid isomer	seeds	Used for treating skin infection, acne and reducing hives	Used for treating blood disorders

**6. Eczema**

**Dermatitis** (also known as **eczema**) is inflammation of the skin, typically characterized by itchiness, redness and a rash.<sup>[1]</sup> In cases of short duration, there may be small blisters, while in long-term cases the skin may become thickened.<sup>[1]</sup> The area of skin involved can vary from small to covering the entire body.<sup>[1][2]</sup>

Dermatitis includes atopic dermatitis, allergic contact dermatitis, irritant contact dermatitis, seborrheic dermatitis and stasis dermatitis.<sup>[1][2]</sup> The exact cause of the condition is often unclear.<sup>[2]</sup> Cases may involve a combination of allergy and poor venous return.<sup>[1]</sup> The type of dermatitis is generally determined by the person's history and the location of the rash.<sup>[1]</sup> For example, irritant dermatitis often occurs on the hands of those who

frequently get them wet.<sup>[1]</sup> Allergic contact dermatitis occurs upon exposure to an allergen, causing a hypersensitivity reaction in the skin.<sup>[1]</sup>



Dermatitis was estimated to affect 245 million people globally in 2015,<sup>[5]</sup> or 3.34% of the world population. Atopic dermatitis is the most common type and generally starts in childhood.<sup>[1][2]</sup> In the United States, it affects about 10–30% of people.<sup>[2]</sup> Contact dermatitis is twice as common in females as males.<sup>[9]</sup> Allergic contact dermatitis affects about 7% of people at some point in their lives.<sup>[10]</sup> Irritant contact dermatitis is common, especially among people with certain occupations; exact rates are unclear.<sup>[11]</sup>

#### Enzema Treatment:- Treatment by Allopathy medicines

Sr no.	Drug name	Category of drug	Dose	Mode of action	Uses	Remark
1	Mometasone	Antihistamine	50 mcg	Corticosteroid hormone receptor agonist	Used for treating Itching, Swollen	For treating Enzema and itching
2	Hydrocortisone	Carticosteroid	20-200 mg	Modify the function of epidermal and dermal of leucosites participating in proliferative and inflametry skin disease	Used to treat Enzema, Rash	For treatment of dermatitis and skin allergies
3	Elidel	Anti leprosy	10 mg/gm	Inhibits the calcium dependent phosphatase, Calcineurin	To treat the symptoms of leprosy and dermatitis	For treatment of Enzema and skin rashes
4	Desonide	Topical Carticosteroid	5 mg Twice a day	Anti inflammatory, Antipruritic and vesic constrictive properties	To treat the redness, Swelling, Itching in skin	For treatment of Enzema and leprocy
5	Elocon	Potant Carticosteroid	15 gm	Anti inflammatory, Antipruritic and vesic constrictive properties	To reduce redness and Itchiness caused by certain skin problem (Dermatitis)	For treatment of Enzema
6	Dexamethasone	Carticosteroid	0.3 mg/kg	Anti inflammatory and immune suppressive	Used to treat certain form of Arthritis: Skin, Blood, Kidney, Eye.	For treatment of several skin allergies and asthma and mainly used to treat certain type of cancer
7	Topicort	Topical carticosteroid	30 gm	Anti inflammetry, anti pruritic and vesic constrictive	To treat eczema allergies, rash	For reducing the swelling, Itching and redness

#### Ayurvedic medicine treating Eczema Disorder

Sr no	Plant name	Family/common name	Chemical constituent	Plant part	Uses	Remark
1	<i>Elettaria cardamomum</i>	Zingiberaceae/Cardamom	1,8 cineole, terpene, esters, flavanoids	seeds	used for digestion, constipation, loss of appetite	used for treatment of eczema

						
2	<i>Curcuma longa</i> Linn 	Zingiberaceae/Haldi	Curcuma, demethoxycurcumin, volatile oil	stem	used for the internal purification of the body	for treatment of leprosy and eczema
3	<i>Solanum xanthocarpum</i> 	Euphorbiaceae/Triphala	tannins, gallic acid, ellagic acid, and chebulinic acid	fruits	used for treating constipation and inflammation	for treatment of eczema and redness
4	<i>Azadirachta indica</i> 	Meliaceae/Neem	Nimbin, nimbinin, nimbidol, sodium nimbinate	leaves and stem	used for improving body defense and cleaning of skin internally	for treating rashes, irritation
5	<i>Smilax ornata</i> 	Apocynaceae/Indian sarsaparilla	hexatriacontane, lupeol, octacosanol, sitosterol	roots	for treating psoriasis and other skin diseases	for treatment of Eczema

### Diet Chart for General Skin disorders

**Early Morning:** -Drink lukewarm water 1-2 glass in empty stomach, before brushing teeth, drink amla juice + Aloe vera juice before breakfast.

### Diet Plan :

TIMING	DIET PLAN (VEGETARIAN)
Breakfast (08:30 AM)	1 cup herbal tea without milk + 1-2 fibre biscuits / less salted Dalia/Poha/Upma/ankurit anaj (sprouts)/ 2 thin roti/+ 1 bowl vegetable+ 1 plate fruit salad (apple, papaya).
Lunch (12:30 -01:30 PM)	1-2 thin chapati /Roti + 1 bowl green vegetables (boiled) + 1 bowl daal (diluted with water) + 1 plate salad .
Snacks (5:30- 6:00 PM)	1 cup herbal tea + 2-3 fibre biscuits / Vegetable soup /Salad.
Dinner (7:00 -8:00 PM)	1-2 thin chapati /Roti + 1 bowl green vegetables (mostly fiber rich) + 1 bowl moong daal (diluted with water).
Bed time 10:00PM	1 tsp Turmeric powder with one glass lukewarm water.

### Do's

**Cereals:** Old rice, wheat, barley

**Pulses:** Pigeon pea (arahar), green gram (moong dal), Lentil (masur daal).

**Fruits and vegetables:** Drum stick (sigru), pointed gourd (paraval), Bitter gourd (karela), Cucumber, Methi saag, spinach, round gourd (tinda), apple, papaya, watermelon.

**Others:** Nutmeg, garlic, carom seed (ajwain), dry ginger, sesame (Til), Hing, rock salt, lukewarm water, old clarified butter, mustard oil, neem oil, cow urine,

**Life style:**

**Yoga pranayam and meditation :** 1. Bhastrika 2. Kapaalbhati 3. Bahyapranayam 4. Anulom Vilom 5. Bhramari 6. Udgeeth 7. Ujjaayi 8. Pravan Jap.

**Asanas:** 1. Light exercise 2. Pashchimouthhanasana 3. Halasana 4. Markatasana 5. Sarvangasana

**Don'ts**

**Cereals:** New rice, Maida

**Pulses:** Pea (matar), Urad dal, chickpea (kabuli chana), black gram (kaala chana), kidney beans.

**Fruits and vegetables:** Potato and other tubers, colocasia (arbee), jack fruit, brinjal

**Others:** Fresh cereals, hot, cold, oily diets, food causing burning sensation and acidity with poor digestion and obstructing channels, curd sesame, salt, jaggery, alcohol, milk, cold water dry food.

**Incompatible food viruddha Ahara:** e.g. milk + fish

**Strictly Avoidable:** Oil spicy food, non veg and non veg soup, Aacahr, taila, ghee, excessive salt, cold drinks, bakery products, alcohol, fast food, pickles, junk foods.

**Life style:** Adhyasana (repetition of food intake after meals within 1-2 hours repeating)

**Yoga pranayam and meditation:** As per doctor advice.

**Asanas:** As per doctor advice.

**Advice:** 1 cup herbal tea is issued or consumed by the patients, in case if he/she is habitual of tea and coffee.

**Do as regular:**

- Get up with the sunrise.
- Brush the teeth twice a day in the morning and before going to bed.
- Scrape the tongue daily.
- Eat fresh light warm food slowly, in peaceful place.
- Meditate and do yoga.
- Chew food properly and slowly.
- Walk 3-5 min after taking food.
- Take a short walk after meal and sleep at proper time at night.

## CONCLUSION

Although skin disease in warfare has historically been a major source of morbidity, the types and sources of dermatologic conditions affecting soldiers on deployments are incompletely understood. Dermatophytic, pyogenic, and eczematous conditions are worthy of special consideration by the military medical community. These diseases decrease operational readiness in theater and sometimes require evacuation. Out of 883 evacuations of military personnel from Iraq and Afghanistan for skin conditions between 2003 and 2006, almost 20% (170), were evacuated with "mystery rashes," skin conditions that were unable to be identified in theater, highlighting the complexity of skin disease in the combat environment and the potential benefits of improved diagnosis.<sup>39</sup> Improved access to dermatologic diagnostic resources, education on dermatologic conditions seen on deployment for medics and midlevel providers, and in-theater access to expert dermatologic consult could all serve to improve the care of deployed soldier.

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