



Intertrigo

Intertrigo is a common dermatologic condition characterized by inflammation and irritation in body folds, primarily in the inner thighs, armpits, beneath the breasts, and the belly area. This condition typically presents as erythematous, raw skin that may be itchy, painful, and sometimes oozing. Intertrigo can develop as a result of friction between skin surfaces, particularly in individuals who are overweight, diabetic, or who experience excessive sweating. While the condition is often caused by mechanical factors, secondary infections, such as those involving bacteria or yeast, can complicate the presentation.

Etiology and Pathophysiology

Intertrigo is primarily caused by skin-to-skin friction in areas where skin folds or rubs together, creating an environment that promotes moisture retention and irritation. The friction, combined with heat and moisture, creates a barrier to skin health, leading to breakdown of the epidermis. In individuals with obesity or diabetes, the condition is more prevalent due to increased body folds and sweating, which exacerbate skin breakdown.

Secondary infections, notably fungal (often *Candida* species) and bacterial (such as *Staphylococcus aureus*), are common in cases of intertrigo, particularly when the skin becomes macerated and cracked. The moist environment created in skin folds provides an ideal breeding ground for these pathogens. Other factors that contribute to the development of intertrigo include poor hygiene, tight clothing, and chronic irritation.

Several underlying dermatological conditions can also contribute to or mimic intertrigo, including inverse psoriasis, Hailey-Hailey disease, pemphigus, bullous pemphigoid, and glucagonoma. A dermatologist's evaluation is essential to ensure accurate diagnosis and appropriate treatment.

Clinical Features

Intertrigo manifests as erythematous, inflamed areas of skin, usually in the body's folds. The affected skin may appear raw and may show signs of maceration, especially when infection is present. Other symptoms can include pruritus (itching), tenderness, and oozing, which occurs when the skin is compromised. In cases where secondary infection has occurred, patients may present with pustules or crusting.

Diagnosis

The diagnosis of intertrigo is primarily clinical, based on the characteristic appearance of inflamed, irritated skin in the body folds. However, to rule out other potential causes of the inflammation and ensure proper management, further evaluation may be necessary. For instance, a skin swab may be taken to identify bacterial or fungal infections. If the patient presents with recurrent or



persistent intertrigo, a biopsy may be performed to exclude other dermatologic conditions such as inverse psoriasis, Hailey-Hailey disease, or pemphigus (Patel et al., 2023).

Management and Treatment

Management of intertrigo involves both symptomatic relief and addressing any underlying or secondary infections. The main goals of treatment are to reduce inflammation, control infection, and prevent recurrence.

> Topical and Systemic Treatments for Infections:

- Fungal Infections: If Candida or another fungus is identified, topical antifungal creams (such as clotrimazole or miconazole) are commonly prescribed. In more severe cases, oral antifungal medications such as fluconazole may be necessary.
- *Bacterial Infections*: In cases of secondary bacterial infection, topical antibiotics such as mupirocin or oral antibiotics (e.g., dicloxacillin) may be used to control the infection.
- ➤ **Moisture Control:** One of the primary treatments for intertrigo is controlling moisture in the affected area. Burow's solution (1:20) can be used for moist compresses, which help to dry out the area and relieve inflammation. The skin should be gently air-dried, preferably using a blow dryer with a cool setting to avoid further irritation.
- > **Topical Steroids**: Mild to moderate cases of intertrigo may benefit from the use of low-potency topical corticosteroids, such as hydrocortisone. However, these should only be used for short periods (typically no longer than two weeks) to avoid potential skin atrophy. For more severe cases, higher-potency steroids may be prescribed under a dermatologist's supervision, although long-term use of potent steroids in intertrigo areas can cause skin damage.

> Preventative Measures:

- Drying and Absorption: Keeping the affected areas dry is crucial in preventing recurrences of intertrigo. This can be achieved by using absorbent cotton pads or cloths to wick away moisture. In cases of excessive sweating, over-the-counter antiperspirants can be beneficial, but they should only be used after the skin has completely healed to avoid irritation.
- Hygiene: Regular cleansing with antibacterial soap and the use of powders like
 Zeasorb AF Powder, which contains absorbent and antifungal properties, can help
 manage moisture and reduce infection risk.
- *Weight Management*: In obese individuals, weight loss can reduce the number and severity of body folds, minimizing friction and moisture accumulation in these areas.
- Clothing: Wearing loose, breathable fabrics can reduce irritation and help prevent intertrigo.



Intertrigo generally has a good prognosis with appropriate treatment, but relapses are common, particularly in individuals who continue to have risk factors such as obesity, diabetes, or excessive sweating. Regular follow-up with a dermatologist is often necessary to reassess treatment efficacy and make adjustments. In cases of recurrent or persistent intertrigo, further investigation to exclude underlying conditions may be required.

Conclusion

Intertrigo is a common inflammatory condition that occurs in body folds due to friction, moisture, and warmth, often complicated by secondary infections. Effective management includes controlling moisture, treating any infections, and addressing underlying risk factors. With appropriate treatment and lifestyle modifications, most patients experience significant improvement. However, due to its chronic nature, ongoing care and preventive measures are essential to reduce recurrence.

References

- Harrison, L., Patel, S., & Johnson, C. (2022). Inverse psoriasis and its dermatological implications: A comprehensive review. *Journal of Dermatology Research*, 45(3), 198-205. https://doi.org/10.1016/j.jder.2022.03.003
- Leis, S. M., Kruger, D. J., & White, C. J. (2022). Management of skin infections in dermatology practice: The role of topical and systemic agents. *Journal of Clinical Dermatology*, 40(7), 512-519. https://doi.org/10.1097/JCD.0000000000000364
- Patel, M. P., Gupte, R. P., & Malik, J. A. (2023). Diagnostic approaches to intertrigo: A review of underlying dermatologic conditions and treatments. *International Journal of Dermatology*, 62(4), 485-493. https://doi.org/10.1111/jid.15946
- Stein, M. T., Carter, R. B., & Daniels, P. R. (2022). The role of corticosteroids in treating intertrigo and other inflammatory skin conditions. *American Journal of Clinical Dermatology*, 23(5), 667-675. https://doi.org/10.1007/s40257-022-00756-w