# Atopic Dermatitis & Mental Health

## Recognizing and managing mental health comorbidities in your patients with atopic dermatitis

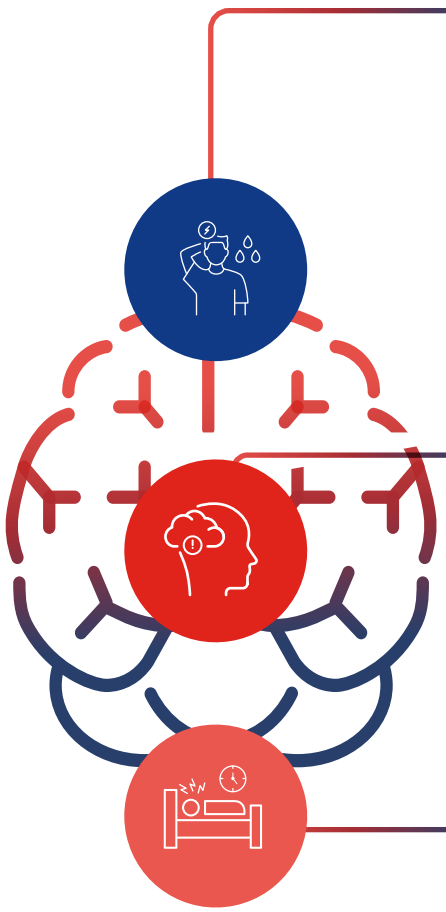
eczchanges:
Talking About Atopic Dermatitis

### Possible mechanisms of psychiatric comorbidity in AD

- AD and psychiatric conditions may arise from overlapping, dysregulated inflammatory pathways, and may trigger or exacerbate each other[1-3]
- Proinflammatory cytokines have been associated with anxiety and depression[4,5]
- Neuropeptides involved in stress, anxiety and depression can modulate AD disease activity[6,7]
- Sleep disturbance may partially explain the link between AD and psychiatric disorders[2,4,8]

### Considerations for managing mental health comorbidities in AD

- Anxiety and depression have been shown to correlate with AD severity[9]
- Consider screening your patients with AD for anxiety and depression[3,8,10,11]
- Improved control of AD signs and symptoms may help resolve anxiety and depressive symptoms; psychiatric comorbidities may warrant a step-up to systemic therapy for some patients[8,10]



Up to **87%** of adults with AD suffer sleep disturbance[c17]

## Anxiety and depression

**Patients with AD are significantly more likely to self-report symptoms or receive a clinical diagnosis of anxiety or depression[10,12,13].**

Patients with moderate-to-severe AD are significantly **more likely to medicate** for their anxiety/depression[a13]

- **Anxiolytics** HR (95% CI): **1.7 (1.6-1.8)** vs. general population
- **Antidepressants** HR (95% CI): **1.2 (1.2-1.3)** vs. general population

1 in 4 AD patients **report depressive symptoms**[10]

1 in 6 AD patients **have clinical depression**[10]

## Suicidal ideation and behaviour

**The risk of suicide in AD patients is low[13]. Nevertheless, patients with AD are more likely to experience suicidal ideation and are at higher risk of suicidal behaviors and self-harm[14,15].**

Compared with non-AD controls, AD patients are **significantly more likely to experience suicidal ideation,** OR (95% CI): 1.4 (1.3-1.7)[14]

AD patients are also **significantly more likely to self-harm,** RR (95% CI): 1.4 (1.3-1.5)[b15]

## Sleep disturbance

**Patients with AD often have impaired sleep, resulting in fatigue, daytime sleepiness, irritability, disturbed cognition, and decreased motor performance[16].**

**Itch due to AD is a major cause of impaired sleep,** although other factors, such as disrupted circadian rhythm, allergens, and cytokine dysregulation, may also be involved[16,17]

**Sleep disturbance may also worsen AD** by increasing inflammation, pain perception, itching and scratching, and chronic stress[17,18]

**Sleep disturbance worsens quality of life and overall health in AD patients[16]**

## Useful resources

**Anxiety and Depression Association of America**
Includes a wealth of information and educational materials for both clinicians and patients

Visit website ▶

Notes: [a]The study was conducted in Danish adults with AD using data from a nationwide registry and population-based questionnaire; [b]This retrospective study analyzed all NHS hospital discharges and mortality data from 1999 to 2011 in England, the findings may not be generalizable beyond this specific healthcare setting and population; [c]This statistic is based on patient-reported questionnaire data, While subjective assessments provide valuable insights, objective sleep studies in AD remain limited.

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***Abbreviations: AD**=Atopic Dermatitis; **HR**=Hazard Ratio; **OR**=Odds Ratio; **RR**=Rate Ratio*

## References

**1.** Yaghmaie P, Koudelka CW, Simpson EL. Mental health comorbidity in patients with atopic dermatitis. J Allergy Clin Immunol 2013;131(2):428-33.

**2.** Laird M and Lo Sicco K. Defining and measuring the scope of atopic dermatitis. Adv Exp Med Biol 2017;1027:93-104.

**3.** Hong CH, Sussman G, Turchin I, Wiseman M, Gooderham MJ. Approach to the assessment and management of adult patients with atopic dermatitis: a consensus document. Section III: Evaluation of atopic dermatitis patients for comorbidities. J Cutan Med Surg 2018;22(Suppl 1):17S-20S.

**4.** Brunner PM, Silverberg JI, Guttman-Yassky E et al. Increasing comorbidities suggest that atopic dermatitis is a systemic disorder. J Invest Dermatol 2017;137(1):18-25.

**5.** Kage P, Simon JC, Treudler R. Atopic dermatitis and psychosocial comorbidities. J Dtsch Dermatol Ges 2020;18(2):93-102.

**6.** Lönndahl L, Rasul A, Lonne-Rahm S-B et al. Tachykinin upregulation in atopic dermatitis. Immunopharmacol Immunotoxicol 2019;41(1):117-22.

**7.** Salomon J and Baran E. The role of selected neuropeptides in pathogenesis of atopic dermatitis. J Eur Acad Dermatol Venereol 2008;22(2):223-8.

**8.** Silverberg JI. Comorbidities and the impact of atopic dermatitis. Ann Allergy Asthma Immunol 2019;123(2):144-51.

**9.** Simpson EL, Guttman-Yassky E, Margolis DJ et al. Association of inadequately controlled disease and disease severity with patient-reported disease burden in adults with atopic dermatitis. JAMA Dermatol 2018;154(8):903-12.

**10.** Patel KR, Immaneni S, Singam V et al. Association between atopic dermatitis, depression, and suicidal ideation: a systematic review and meta-analysis. J Am Acad Dermatol 2019;80:402-10.

**11.** Silverberg JI, Gelfand JM, Margolis DJ et al. Symptoms and diagnosis of anxiety and depression in atopic dermatitis in U.S. adults. Br J Dermatol 2019;181(3):554-65.

**12.** Eckert L, Gupta S, Amand C et al. Impact of atopic dermatitis on health-related quality of life and productivity in adults in the United States: an analysis using the National Health and Wellness Survey. J Am Acad Dermatol 2017;77(2):274-9.e3.

**13.** Thyssen JP, Hamann CR, Linneberg A et al. Atopic dermatitis is associated with anxiety, depression, and suicidal ideation, but not with psychiatric hospitalization or suicide. Allergy 2018;73(1):214-20.

**14.** Sandhu JK, Wu KK, Bui T-L, Armstrong AW. Association between atopic dermatitis and suicidality: A systematic review and meta-analysis. JAMA Dermatol 2019;155(2):178-87

**15.** Singhal A, Ross J, Seminog O, Hawton K, Goldacre MJ. Risk of self-harm and suicide in people with specific psychiatric and physical disorders: comparisons between disorders using English national record linkage. J R Soc Med 2014;107(5):194-204.

**16.** Silverberg JI, Garg NK, Paller AS, Fishbein AB, Zee PC. Sleep disturbances in adults with eczema are associated with impaired overall health: A US population-based study. J Invest Dermatol 2015;135(1):56-66.

**17.** Chang Y-S and Chiang B-L. Sleep disorders and atopic dermatitis: A 2-way street? J Allergy Clin Immunol 2018;142(4):1033-40.

**18.** Yu SH, Attarian H, Zee P, Silverberg JI. Burden of sleep and fatigue in US adults with atopic dermatitis. Dermatitis 2016;27(2):50-8.

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