

Fragility of epidermis in newborns, children and adolescents.

[Blume-Peytavi U](#)¹, [Tan J](#)^{2,3}, [Tennstedt D](#)⁴, [Boralevi F](#)⁵, [Fabbrocini G](#)⁶, [Torrelo A](#)⁷, [Soares-Oliveira R](#)⁸, [Haftak M](#)^{9,10}, [Rossi AB](#)^{11,12}, [Thouvenin MD](#)¹¹, [Mangold J](#)¹¹, [Galliano MF](#)^{11,13,14}, [Hernandez-Pigeon H](#)^{11,14}, [Aries MF](#)^{13,14}, [Rouvrais C](#)¹¹, [Bessou-Touya S](#)^{11,13,15,14}, [Duplan H](#)^{11,13,14}, [Castex-Rizzi N](#)^{11,13,14}, [Mengeaud V](#)^{11,13}, [Ferret PJ](#)^{16,17}, [Clouet E](#)^{16,17}, [Saint Aroman M](#)¹⁸, [Carrasco C](#)^{11,13,14}, [Coutanceau C](#)¹⁵, [Guiraud B](#)¹¹, [Boyal S](#)³, [Herman A](#)⁴, [Delga H](#)¹⁴, [Biniek K](#)¹⁹, [Dauskardt R](#)¹⁹.

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Abstract

Within their first days of life, newborns' skin undergoes various adaptation processes needed to accommodate the transition from the wet uterine environment to the dry atmosphere. The skin of newborns and infants is considered as a physiological fragile skin, a skin with lower resistance to aggressions. Fragile skin is divided into four categories up to its origin: physiological fragile skin (age, location), pathological fragile skin (acute and chronic), circumstantial fragile skin (due to environmental extrinsic factors or intrinsic factors such as stress) and iatrogenic fragile skin. Extensive research of the past 10 years have proven evidence that at birth albeit showing a nearly perfect appearance, newborn skin is structurally and functionally immature compared to adult skin undergoing a physiological maturation process after birth at least throughout the first year of life. This article is an overview of all known data about fragility of epidermis in 'fragile populations': newborns, children and adolescents. It includes the recent pathological, pathophysiological and clinical data about fragility of epidermis in various dermatological diseases, such as atopic dermatitis, acne, rosacea, contact dermatitis, irritative dermatitis and focus on UV protection.