

## Circadian rhythm of water transport protein affects skin cycles throughout the day

Researchers have discovered a protein that regulates the circadian ebb and flow of water in and out of the skin's pores, according to a report in the June issue of the Journal of Investigative Dermatology.

Recent studies have suggested the water content of skin, or skin hydration, has a circadian rhythm but the underlying mechanisms weren't known, researchers said.

The latest study identified a molecular link between the circadian clock and aquaporin 3 (AQP3), a protein called an aquaglyceroporin, which is involved in the transport of water and glycerol molecules through the pores of the skin.

Water and glycerol are key components of skin hydration, which is key to maintaining a protective barrier against infection and dehydration, researchers said.

Understanding the circadian rhythm of AQP3 may explain why certain topical medications are absorbed better in the evening, when moisture is greatest in the stratum corneum, the outermost layer of skin, and possibly lead to improved timing for drugs and cosmetic products, they said.

**Read the full, original story: [The Skin's Circadian Rhythm](#)**