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Subliminal (Latent) Processing of Pain and its Evolution to Conscious Awareness

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Highlights

1. Processes affecting networks that are pre-clinical representing “subliminal pain”
2. Clinical examples implicate nonconscious processes and delayed pain emergence
3. Relapse of pain suggests latent processes are ongoing
4. Subliminal pain denotes a potential target for early preventative interventions

Abstract:

By unconscious or covert processing of pain we refer to nascent interactions that affect the eventual deliverance of pain awareness. Thus, internal processes (viz., repeated nociceptive events, inflammatory kindling, reorganization of brain networks, genetic) or external processes (viz., environment, socioeconomic levels, modulation of epigenetic status) contribute to enhancing or inhibiting the presentation of pain awareness. Here we put forward the notion that for many patients, ongoing sub-conscious changes in brain function are significant players in the eventual manifestation of chronic pain. In this review, we provide clinical examples of nascent or what we term *pre-pain* processes and the neurobiological mechanisms of how these changes may contribute to pain, but also potential opportunities to define the process for early therapeutic interventions.

Keywords: subconscious; awareness; chronic pain; cognition; iceberg; brain; neural networks

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