

SPATIAL AND TEMPORAL PATTERN DISCOMFORT

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Abstract

The human visual system evolved to process images from nature. Natural images differ from those in the urban environment with respect to their temporal, chromatic and spatial characteristics. We will explore the characteristics of visual stimuli that make them computationally complex for the neural machinery of the cerebral cortex, that increase the oxygen usage by the brain, and that lead to eye-strain and headaches. It will become apparent that the computational processes that subserve vision are more complex with unnatural images than with those from nature, and that this complexity has consequences for oxygen metabolism. The oxygen metabolism is closely linked to headaches.