# HEADACHE AND EYE-STRAIN.*

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In considering this subject I do not intend to go into the causes and treatment of all forms of headache, but only that which can be attributed to the eyes as a primary cause, and due largely or entirely to ocular anomalies, and propose to consider some phases of eye-strain where headache is not the only or the most prominent symptom. These two, headache and eye-strain, are so closely connected, the one the effect, the other the cause, that in any discussion of the one, the other will be necessarily considered.

First, as to the special form of headache caused by eye-strain: the most frequent form is that of brow-ache or supra-orbital headache, over one or both eyes, particularly marked after prolonged use of the eyes for close work.

Next, that of deep orbital, where the pain seems more deeply concentrated in the eyeball, and is more frequent where the defect is that of astigmatism, with the pain coming on after prolonged concentration of vision for either distance or near.

Then there is the fronto-occipital, which may be more manifest in the mornings, and following pretty constantly after a previous day's eye-strain, or an evening spent at concert, theatre, or cards. This form may precede a true migraine, and not disappear for a day or two. I wish to distinguish this form from a pure occipital headache, which is often found in connection with a neurasthenic condition.

Then temporal headache, which may follow eye-strain due to any form of eye defect, but is particularly frequent in cases of astigmatism with axes deviating from the vertical.

In distinguishing headache due to some ocular defect from that due to some other cause, the one great factor to consider is that in ocular defects the headache is produced or aggravated by use of the eyes, and is lessened or relieved by their rest. There are exceptions to this, but as a general working rule it will be found to be a practical guide. And the headache due to eye-strain may or may not be accompanied by asthenopia or painful vision. It is an error to suppose that if the vision is normal, or practically so, the headache is not due to eye-strain, as it is in the smaller ocular defects such as hyperopic astigmatism of one-half to three-quarters of a dioptre, or mixed astigmatism of a like amount, that give rise to the most troublesome headache, particularly if the axis be at an angle or against the rule, and in

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