

SAHLGREN'S SATURATION TEST (SST)

Purpose of the test. The SST is specifically designed for detecting and grading *acquired* color vision defects. It depends on the elevation of the saturation threshold for bluish purple colors that occurs in acquired diseases of the retina and the anterior visual pathways.

Description of the test. The SST consists of 12 test caps contained in a wooden box. There are five bluish green caps with different saturations, five bluish purple caps with different saturations, and two grey caps.

Administration of the test. The SST should be presented in good reading light, preferably about 300 lux (30 foot-candles) of white light, in a neutral surround. Open the box and arrange the test caps in random order in one partition. Instruct the subject to be tested that some of the caps are bluish green, some are bluish purple, and some are grey. The task is to sort out all caps appearing to contain any bluish green or bluish purple color and to transfer these caps to the empty partition of the box. The transferred caps need not to be arranged in any particular order. Only grey caps are allowed to stay in the other partition of the box. After completion, the subject should be asked to check the results carefully and to make any necessary changes. There is no need for a time limit.

When the SST is used for monocular testing make sure that the nontested eye is occluded effectively.

Recording results. Turn all caps considered to be grey upside down and add the numbers printed on the bottom. The sum gives the test score. The transferred caps are ignored, even if the subject transfers one or both pure grey caps. Erroneous transfer of grey caps is allowed because of the threshold measuring nature of the test: it has no diagnostic value.

Interpretation of results. A test score of 10 or less is normal. A score of 15 is suggestive of abnormality. A score of 20 or more is certainly abnormal and indicates defective color vision. The higher the score, the more pronounced the abnormality.

CAUTION: Some individuals with pure congenital color vision defects will obtain abnormal scores in the SST and particularly those who have a protan type of defect. Therefore, it is sound to combine the SST with a test that is sensitive for congenital color vision defects. The Ishihara series of pseudoisochromatic charts is recommended. The test should be administered according to the manufacturer's recommendation. The number of erroneously read plates is recorded. If there are more than two errors, the result is abnormal. To differentiate between a congenital defect, an acquired defect, and a combined defect, use the diagram overleaf.

Care of the test. Do not expose the pigment to light more than necessary, to avoid bleaching. The pigments should not be touched: always grasp the caps from the side. Soiled pigments can be changed through the manufacturer.

