

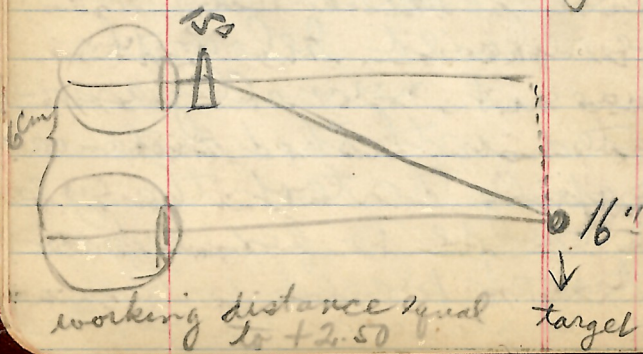
#1, March 9, '25

Dynamicskiametry } definition

This is a system of retinoscopy which is based upon the assumption that the relation between accommodation and convergence is so close that the latter dominates the former. It is assumed that if convergence be fixed upon a given point, accommodation cannot be relaxed below the amount normally associated with that distance. To apply the test the eyes are made to fix upon a target placed in the same plane as the operators.

Eye then plus lenses are built up before both eyes until the strongest power is discovered which can be accepted without causing a myopic motion of the reflex. These lenses are supposed to indicate the total error, no deduction being made for working distance.

Prism Skiametry



Prism Cancel Convergence
with lenses

over both eyes beginning with +4.00

This is a true static skiametry, as convergence of the eyes renders relaxation of accommodation difficult. So divergence renders it easy. The test is made by placing before one eye a 15° Prism, Base in then placing before both eyes +4.D. spheres. The operator takes his station at 16 inches and instructs the patient to look intently at the target which is so attached to the retinoscope as to occur

by a position directly above the aperture of the mirror. The prism cancel convergence for the 16 inch distance and the spheres will usually be found sufficient to cancel all accommodation. If the test shows myopic motion weaken both plus lenses until neutrality is observed. Do not stop here, but reduce the plus another half diopter and move back to 20 inches. At this distance the eyes will be made to diverge 3^{Δ} diopters, neutrality will of course be observed. The operator starts moving farther back, watching the reflex

closely for signs of myopic motion and stopping at the greatest distance at which neutrality is possible. As the test continues it may be necessary to return to the original plus which would indicate marked relaxation of accommodation. Carefully measure the distance at which the test is completed and subtract the dioptric value of this distance from the power of the lenses, the remainder is the static refraction

Testing Presbyopia
working at 16" = +2.50

In testing presbyopia we measure the amplitude. This is done by +2.00D over distance correction, then find the nearest point at which the patient can read the finest type. Calculate the dioptric value of this distance and subtract the 2D which you have supplied as a looser. The remainder is the total amplitude. Having found this we divide it by 2 because half of the amplitude is the amount which every patient can afford

to use for sustained work. The proper reading distance is 16 inches, the value of which +2.50D we therefore subtract one half of the amplitude from +2.50 the remainder is the reading add.

The foregoing rule applies to distance bifocals which never have an add. stronger than .250. Some persons need reading bifocals also, these would be the cases who from old age slight disease or some other cause have a poor

acuity making it necessary for them to have high magnification in their reading glasses. For such we might assume a reading distance of 10 inches in which 4 D instead of +2.50 is taken as the unite. Some others might have 3.50 or even 5.00 to be determined by a test.

Physiologic Exophoria is the normal lag of convergence behind accommodation when the muscle test is made at the near point. If the test is made at 16 inches the exophoria should be 4^Δ dioptics. If the muscle test at near point shows esophoria add + spheres to the distance ^{glasses} until the strength is found which produces 4^Δ exophoria. This power should be added to distance correction for use in reading for prolonged periods.

muscle strain is
any muscle action which
is not quickly followed
by relaxation