

SIGNS/SYMPTOMS OF NON-STRABISMIC VERGENCE DYSFUNCTION

CONDITION	DISTANCE	NEAR	CLINICAL OBSERVATION / FINDINGS	AETIOLOGY / PREVALENCE	SIGNS/SYMPTOMS
Fusional vergence dysfunction (binocular instability)	Ortho, low EP or low XP	Ortho, low EP or low XP	Variability in findings. Normal AC/A; poor distance and near BI/BO range and distance and near BI/BO vergence facility; low NRA/PRA and (+)/C- on BAF but normal MAF; small zone of clear, single binocular vision (CSBV)	10%	asthenopia; HA; intermittent blur; visual task poor stamina/ concentration/comprehension; worse with time and fatigue.
Basic esophoria	EP	Similar EP to distance	Normal AC/A; poor distance and near BI ranges and distance and near BI vergence facility; low PRA and (-) on BAF; high MEM;	3%	asthenopia; HA; end of day fatigue.
Basic exophoria	XP	Similar XP to distance	Normal AC/A; poor distance and near BO ranges and distance and near BO vergence facility; receded NPC; low NRA, MEM and (+) on BAF;	3%	distance and near asthenopia; HA; intermittent blur/diplopia worse with fatigue/end of day.
"Convergence insufficiency (CI) - low	Ortho	XP	Low AC/A; possible IXT; poor NPC, stereo, near BO, BO vergence facility and (+) on BAF; low MEM and NRA; asthenopia; HA;	15%	intermittent blur/diplopia; near vision task poor stamina/ concentration/comprehension; words move on page/screen, worse with fatigue; mostly related to near vision tasks.
"Convergence insufficiency (CI) - high	XP	Larger XP than distance	Low AC/A; possible IXT and IXT; poor NPC, stereo, distance and near BO ranges, distance and near BO vergence facility and (+) on BAF; low MEM and NRA;	15%	asthenopia; HA; intermittent blur/diplopia; distance and near vision task poor stamina/concentration/comprehension; words move on page/screen, worse with fatigue; can be related distance and near vision tasks.
Convergence excess - low	Ortho	D	High AC/A; poor near BI ranges and near BI vergence facility; low PRA and (-) on BAF; high MEM;	7%	asthenopia; HA; intermittent blur/diplopia; near vision tasks-poor stamina/concentration/ comprehension; words move on page/screen, worse with fatigue; mostly related to near vision tasks.
Convergence excess - high	EP	Larger EP than distance	High AC/A; poor distance and near BI ranges and distance and near BI vergence facility; low PRA and (-) on BAF; high MEM; >3PD EP at near than at distance	7%	asthenopia; HA; intermittent blur/diplopia; distance and near vision tasks-poor stamina/concentration/ comprehension; words move on page/screen, worse with fatigue; can be related to distance and near vision tasks.
Divergence insufficiency	EP	Ortho	Low AC/A; high tonic EP, poor distance BI ranges and distance BI vergence facility;	1%	distance vision task asthenopia, especially at end of day with intermittent distance vision blur/diplopia.
Divergence excess	XP	Smaller XP than distance	High AC/A; high tonic XP, large exotropia/exophoria at distance, poor distance BO ranges and distance BO vergence facility; normal NPC and stereo; >10 PD EXO at far	3%	end of day near vision task asthenopia.
Vertical phorias	H, Ho	H, Ho	Comitant deviations, noncomitant deviations, old decompensated 4th nerve palsies, newly acquired 4th nerve palsies, possible mechanical cause (trauma)	20%	diplopia, difficulties at reading or advanced vision tasks, asthenopia