

## 3.4 Normal Tension Glaucoma

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### NORMAL TENSION GLAUCOMA DEFINITION

1. Normal open angles
  2. Optic disc cupping and pallor
- The following noted in at least 2 visits/assessments
3. Reliable CVF test and reproducible visual fields defect
  4. Progressive VF defect
  5. IOP between 10-21 consistently
  6. Worsening glaucomatous optic neuropathy

### DIFFERENTIAL DIAGNOSIS

Toxic optic neuropathy  
Optic pit  
Optic nerve head drusen  
Previous ischaemic/ hypotensive event  
Previous optic neuropathy  
Slow compressive optic neuropathy  
Peripheral retinal pathology causing scotoma  
Acute zonal occult outer retinopathy AZOOR  
Optic disc coloboma

### BASELINE ESSENTIAL EXAMINATION/INVESTIGATION HISTORY

Exclude previous ischaemia/ trauma/ hypotensive episode (RTA/childbirth/heavy menses/stroke)  
Drug history: excluding systemic beta blocker

#### OCULAR EXAMINATION

Gonioscopy/ colour vision/ pupil check/ phasing/CCT

#### CARDIOVASCULAR

BMI/BP/ECG  
Full blood count/Folate/B12/renal & liver function

#### NEUROLOGICAL

History and examination

### FURTHER INVESTIGATIONS

If the defined indicators of non-glaucomatous optic neuropathy are present, investigate for neurological disease before treatment or progression of disease:

1. CT Scan or
2. MRI Brain and Orbits
3. Liaise for neurological opinion

### TREATMENT

1. Treat any underlying contributing vascular cause
2. IOP lowering still has value
3. Set the target IOP with consideration of CCT  
As IOP may be high at night
4. Also consider the 24-hour IOP phasing results
5. Firstline treatment: consider Prostaglandin analogue
6. Consider SLT if starting IOP>15
7. Perform trabeculectomy if glaucomatous damage is progressing despite appropriate medical therapy
8. Review 3-4 monthly