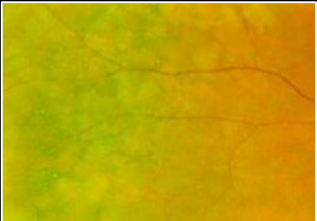
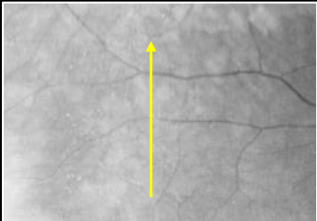
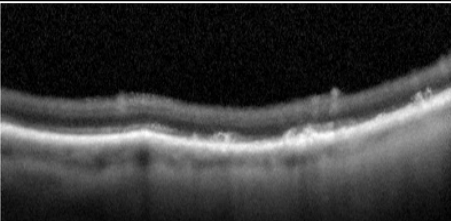
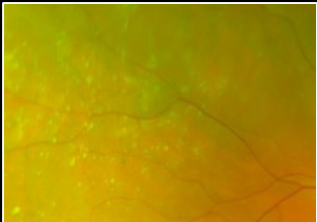
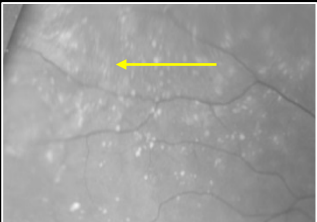
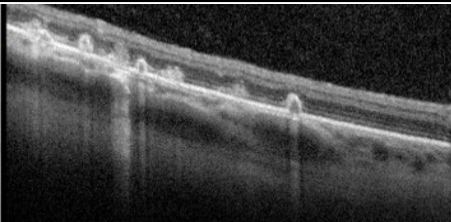

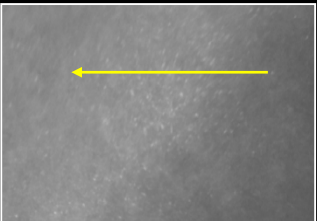
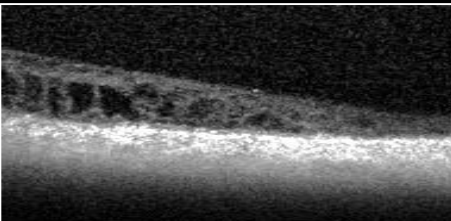
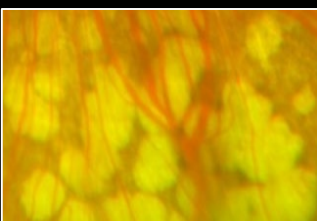
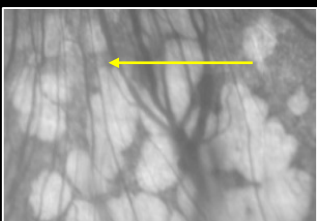
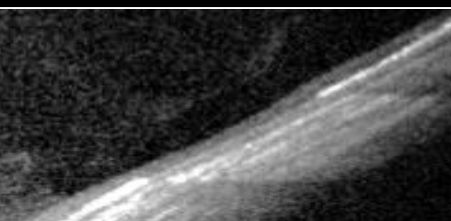


CHAIR-SIDE REFERENCE: PERIPHERAL RETINA

NON VISION-THREATING LESIONS OF THE PERIPHERAL RETINA

Optomap/Retinal Photo	Red-free image	Optical coherence tomography (OCT)	Description
Peripheral (reticular) pigmentary degeneration (honeycomb chorioretinal degeneration)			<ul style="list-style-type: none"> Circumferential bands of granular pigment, which may appear similar to bone spicules, between the ora serrata and equator. Usually bilateral and often accompanied by peripheral drusen. Innocuous, however is more prevalent with increasing age. <p><i>Routine review required.</i></p>
			
Peripheral drusen			<ul style="list-style-type: none"> Multiple small, focal, yellow lesions, often found near the equator. May present with pigmented borders. Usually bilateral and often accompanied by reticular pigmentary degeneration More prevalent with increasing age, however association with AMD is contentious at this stage. <p><i>Routine review required.</i></p>
			
Peripheral cystoid degeneration (microcystoid degeneration)			<ul style="list-style-type: none"> Hazy grey area of thickened retina extending from the ora serrata. Small red cysts within areas of cystoid degeneration may mimic the appearance of atrophic retinal holes. Coalescence of cysts with accompanying splitting of retina is thought to lead to development of retinoschisis. <p><i>Routine review required.</i></p>
			
Chorioretinal atrophy (pavingstone/cobblestone degeneration)			<ul style="list-style-type: none"> Circumscribed areas of retinal thinning from loss of RPE and photoreceptors, allowing increased visualisation of the choroidal vasculature. Older lesions have surrounding pigment hyperplasia, and adjacent lesions may join to form larger areas of atrophy, OCT shows loss of the RPE and thinning of the outer retinal layers. Often bilateral and more common in the inferotemporal quadrant. More prevalent with increasing age <p><i>Routine review required.</i></p>
			

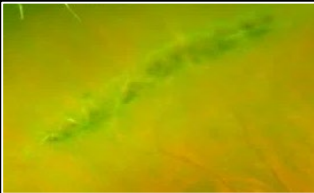
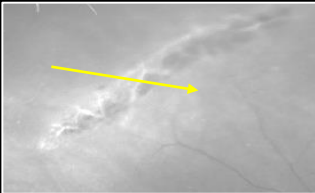
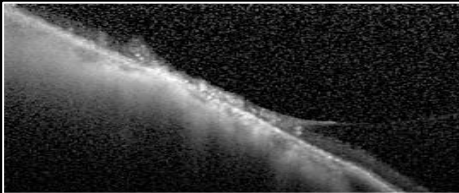
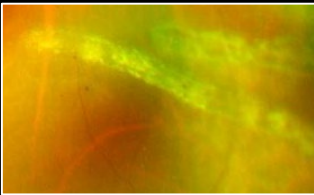
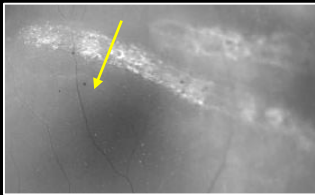
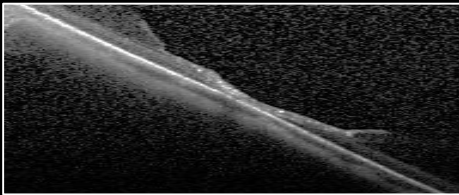
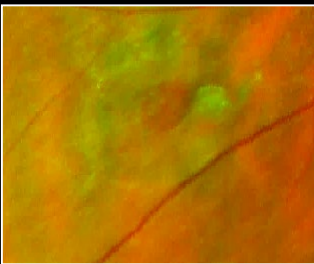
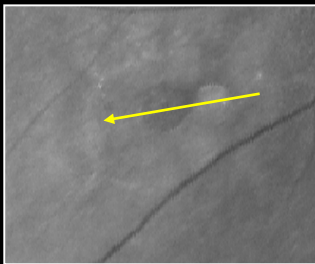
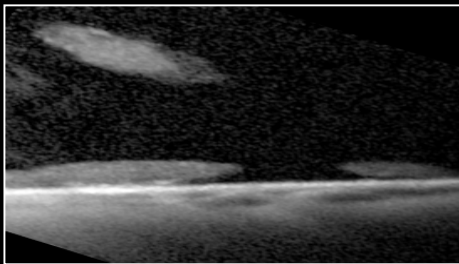
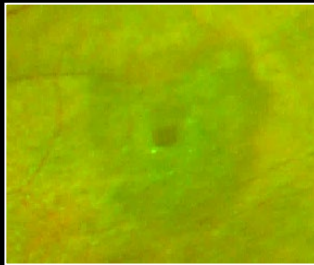
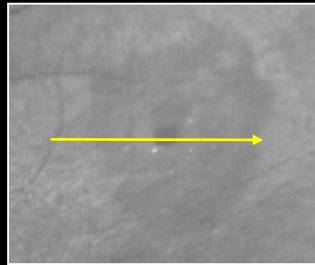
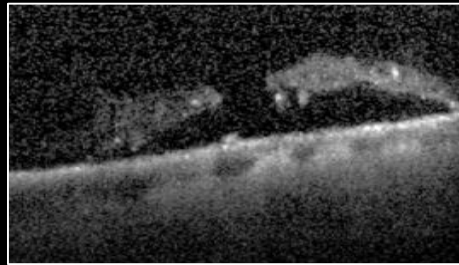


CHAIR-SIDE REFERENCE: PERIPHERAL RETINA

Optomap/Retinal Photo	Red-free image	Optical coherence tomography (OCT)	Description
Congenital hypertrophy of the retinal pigment epithelium (CHRPE)			<ul style="list-style-type: none">Solitary, flat, well-demarcated grey-black lesion which may have a marginal halo with overlying vessel sheathing and attenuation.Internal areas of chorioretinal atrophy (lacunae) become more prominent with age.Usually asymptomatic but associated with relative scotoma in childhood and absolute scotoma in adulthoodRarely can develop into an RPE adenoma (benign epithelioma) or adeno-carcinoma, suggested by a nodular appearance, exudation or unusual vascularisation. <p><i>Routine review in case of isolated lesions. Consider referral for multiple, bilateral or pisciform-shaped lesions or positive family history of familial adenomatous polyposis.</i></p>
Dark without pressure			<ul style="list-style-type: none">Discrete, flat patches of darker retina, often with well-defined scalloped edges.Areas can vary in shape and location over time and correlate with changes in outer retinal reflectivity on OCT (ellipsoid zone).More common in darkly pigmented fundi. <p><i>Routine review required.</i></p>
CHANGES THAT POSE A POSSIBLE THREAT TO VISION			
White without pressure			<ul style="list-style-type: none">Appears as area of translucent white to grey retina, often with a red-brown border.Can vary in shape and location over time and correlate with changes in outer retinal reflectivity on OCT (ellipsoid zone).More prevalent with increasing age and in myopia, and more pronounced in appearance in darkly pigmented fundiThe exact aetiology is contentious and potential association with the development of retinal breaks is unclear. <p><i>Review 6 monthly-2 yearly (more frequently in lesions with scalloped borders and extensive vitreous degeneration).</i></p>
Vitreoretinal tuft: Non-cystic (top) and Cystic (bottom)			<p>Non-cystic: Short (<0.1mm), thin projections of altered retinal and glial tissue.</p> <ul style="list-style-type: none">Tips of noncystic tufts may dislodge, observed as small floaters overlying the vitreous base.Not associated with retinal breaks. <p><i>Routine eye exam</i></p> <p>Cystic: Round/oval-shaped, grey-white nodules of varying size with internal microcysts and often with RPE hyperplasia within/adjacent to the lesion.</p> <ul style="list-style-type: none">Congenital and associated with vitreoretinal traction.Consist of glial tissue with internal microcysts and often with RPE hyperplasia near/within the tuft.With PVD may predispose to a retinal tear, operculated hole or detachment. <p><i>Annual review if asymptomatic. If symptomatic, prompt evaluation with scleral indentation for any retinal break is warranted.</i></p>


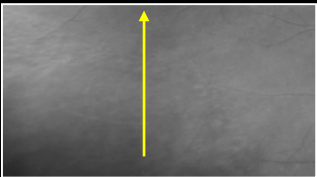
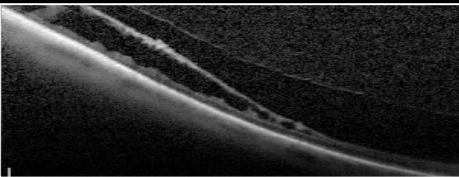
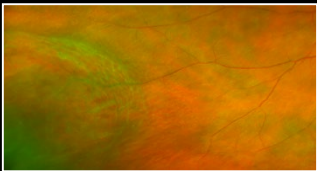
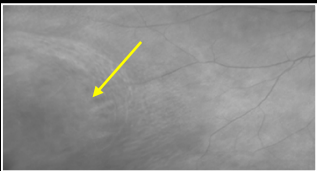
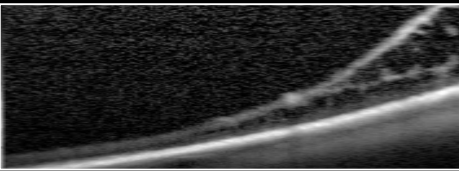
CHAIR-SIDE REFERENCE: PERIPHERAL RETINA

CHANGES THAT POSE A POSSIBLE THREAT TO VISION - continued


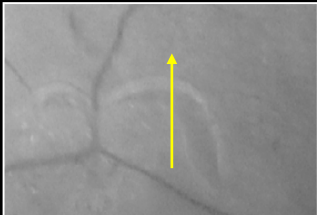
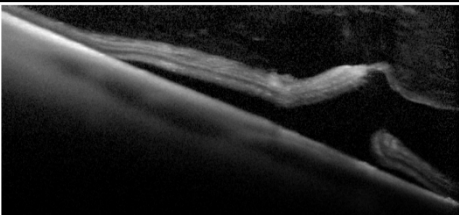

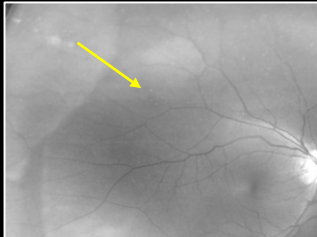
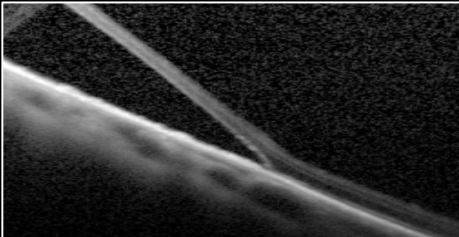
Optomap/Retinal Photo	Red-free image	Optical coherence tomography (OCT)	Description
Lattice (top) and snailtrack (bottom) degenerations			<p>Lattice: Band of retinal thinning with abnormal vitreoretinal attachments at the margins.</p> <ul style="list-style-type: none"> Associated with RPE hyperplasia, yellow glistening flecks, vessel sclerosis and atrophic holes. Commonly located in the superior and inferior retina and usually orientated circumferentially Perivascular and radial variants associated with higher risk of tear or detachment formation <p>Snailtrack: A variant of lattice degeneration.</p> <ul style="list-style-type: none"> Shiny bands due to numerous glistening yellow-white dots on the inner retinal surface without associated pigmentation. Often associated with atrophic holes. Most common in inferotemporal quadrant. <p><i>Annual review is required. If an increase in size or other signs of progression are observed, referral is indicated. If Symptomatic: scleral indentation is mandatory, and if a horseshoe tear or retinal detachment is observed referral is indicated.</i></p>
			
			
Operculated retinal hole			<ul style="list-style-type: none"> Round red hole with an overlying floating fragment of tissue, which often appears smaller than the hole due to atrophy. Results from focal vitreoretinal traction which pulls a “plug” of retinal tissue (operculum) away from the surrounding retina. Associated with localised subclinical retinal detachment (fluid cuff) and surrounding RPE hyperplasia, indicative of relative chronicity. <p><i>Asymptomatic cases with <1DD radius fluid cuff: 4-12 month review, depending on chronicity. If an increase in size or signs of progression are noted, referral is indicated. With fluid cuff >1DD radius, symptomatic lesions or in the case of additional risk factors for retinal detachment: referral is indicated.</i></p>
			
Atrophic retinal hole			<ul style="list-style-type: none"> Red, round lesion, pinpoint to 2DD, representing a full thickness retinal break that results from retinal thinning Commonly associated with localised subclinical retinal detachment (fluid cuff) and surrounding RPE hyperplasia, indicative of relative chronicity. Can occur within lattice or snailtrack degeneration or otherwise apparently normal retina, and is unrelated to vitreoretinal traction. <p><i>Asymptomatic cases: 1-2 yearly review, depending on chronicity. With fluid cuff <1DD in radius: review in 6-12 months depending on chronicity. With fluid cuff >1DD radius or symptomatic cases: referral is indicated.</i></p>
			



CHAIR-SIDE REFERENCE: PERIPHERAL RETINA

Optomap/Retinal Photo	Red-free image	Optical coherence tomography (OCT)	Description
Flat / typical (top) and Degenerative / bullous / reticular (bottom) retinoschisis			
			<p>Flat: Smoothly elevated, transparent retina, often with surface white dots.</p> <ul style="list-style-type: none">• Usually bilateral and most common in the inferotemporal quadrant.• Retinal splitting occurs at the level of the outer plexiform layer as a result of the coalescence of cysts in peripheral cystoid degeneration.• Rarely associated with expansion, retinal holes or retinal detachment. <p>Degenerative : Well-circumscribed, immobile, transparent dome-shaped elevation of the retina with a reticular pattern of sheathed retinal vessels.</p> <ul style="list-style-type: none">• Often bilateral and most common in the inferotemporal quadrant.• Retinal splitting occurs at the nerve fibre layer with an increased incidence of inner and outer layer holes and associated formation of retinal detachments.• The presence of a pigmented demarcation line suggests a secondary detachment which has been stationary for >3 months. <p><i>Annual review is required. If an increase in size or other signs of progression are observed, referral is indicated.</i></p>
			

PERIPHERAL RETINAL CHANGES THAT POSE A DIRECT THREAT TO VISION

Optomap/Retinal Photo	Red-free image	Optical coherence tomography (OCT)	Description
Retinal tear (linear, horseshoe or flat)			
			<ul style="list-style-type: none">• Appears red surrounded by grey retinal tissue. When horseshoe-shaped, the apex usually points towards the posterior pole.• Retinal break associated with vitreoretinal traction, where the vitreous remains adherent to the flap of torn retina. May occur along edges of lattice degeneration or associated with vitreoretinal tufts and often associated with acute PVD.• Can progress to retinal detachment, typically within a few weeks. <p><i>Prompt referral is indicated</i></p>
Rhegmatogenous retinal detachment			
			<ul style="list-style-type: none">• Fluid separation of neuro-sensory retina from the RPE through a break in the retina.• Appears as a semi-transparent, undulating elevation, becoming opaque over time.• Obscuration of underlying choroidal detail may be the only visible sign in early or shallow cases.• A pigmented demarcation line, whitish folds and accumulation of intraretinal exudates indicates relative chronicity.• Retinal detachments can also occur due to trauma, exudation or traction. <p><i>Prompt referral is indicated.</i></p>

RISK FACTORS ASSOCIATED WITH THE DEVELOPMENT OF RETINAL DETACHMENT	Vitreous degeneration (liquefaction or shrinkage), Myopia, Fellow eye with retinal detachment, Strong family history of retinal detachment, Symptomatic retinal break, Cataract surgery, Progression of retinal thinning in young patients, Presence of significant vitreoretinal traction in elderly patients, Blunt/penetrating ocular injury, Peripheral vitreous haemorrhage.
---	---

This chairside reference is intended to cover the more common peripheral retinal lesions but is not all-encompassing. In particular changes adjacent to the ora serrata such as meridional folds, zonular traction tufts, pars plana cysts and oral pearls are not included in this reference.