

The background is a dark, semi-transparent overlay on a photograph. The photograph shows a hand holding a white pen, poised to write on a document. The document has a grid pattern with numbers like 18 and 30. The overall tone is professional and focused on the task of writing or reviewing data.

# OTOSCOPY – A REFRESHER

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AUDIOLOGIST, RETIRED

# INTRODUCTION

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I acknowledge the traditional custodians of this land, the past, present and future leaders

Otoscopy is the basis of all Ear Health Surveillance Programs

Regular part of routine health monitoring

Ear Infection in Children – 80% of all children have an ear infection at some time

In Indigenous populations, nearly 100%

Ear Disease in Adults – Usually a result of childhood disease - not well documented. Many treated, but many not, and many failed treatments

How many with ear problems in this audience?

# EQUIPMENT

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Fibre Optic technology – bright white light with no obstructions

Field of vision – the larger the better

Speculums – Paediatric, Adult, - the bigger the better  
Cleaning vs Disposable

Batteries – Rechargeable vs Changeable



# GET A GRIP

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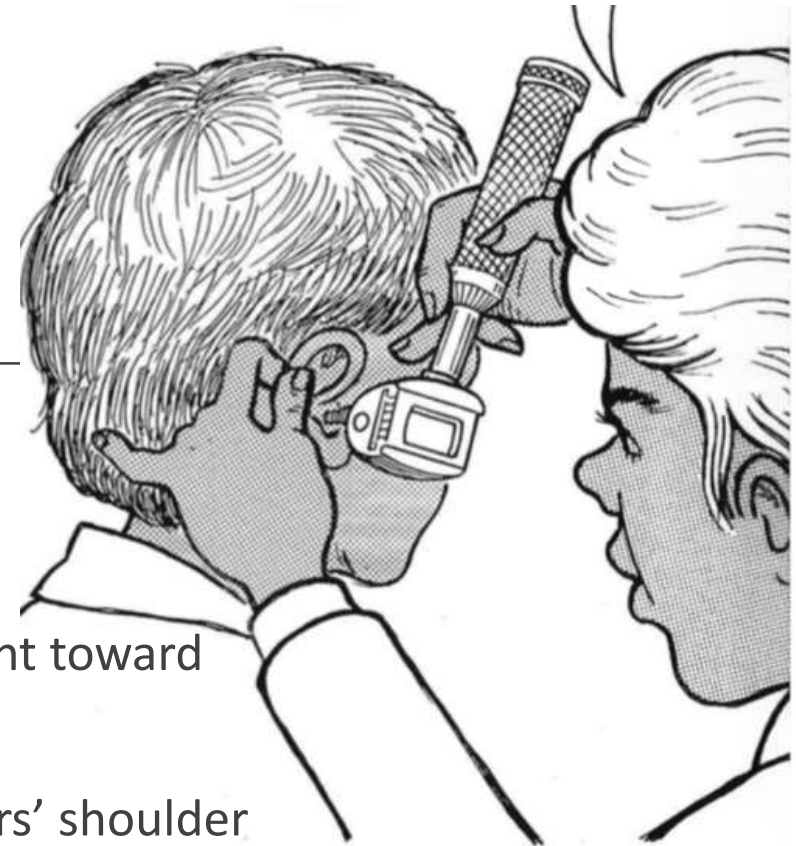
Pencil grip – Weight of otoscope on your middle finger, not their ear

Change hand holding otoscope for each ear if you can.

Little finger against child's head – protects against sudden movement toward you

Other hand straightening ear canal and stabilising head against carers' shoulder

Enter ear canal from the top



# HAVE A SEAT!

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Save your back!

Looking at eye level gives the best view

Children over 5 years can stand

For babies and young children on a lap, you still sit down



# LET'S HAVE A LOOK

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Tell them what you will do – allow them to touch the light but not hold the otoscope

Body language – who is in control.

Child's position – Sitting on lap with whole body facing left or right

Gently push the child's head against the carers' chest/shoulder



# WHAT AM I LOOKING AT?

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Normal



Discharging Ear



# WHAT AM I LOOKING AT IN THE CANAL?

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What is in the canal? – Discharge, wax, debris, foreign bodies, exostoses, grommets

Wax



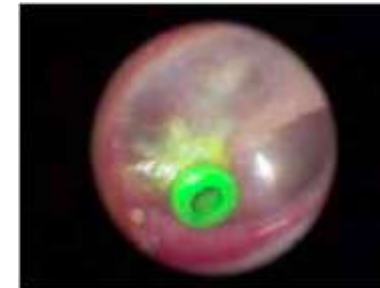
Foreign Bodies



Exostoses



Grommet



Extruded Grommet

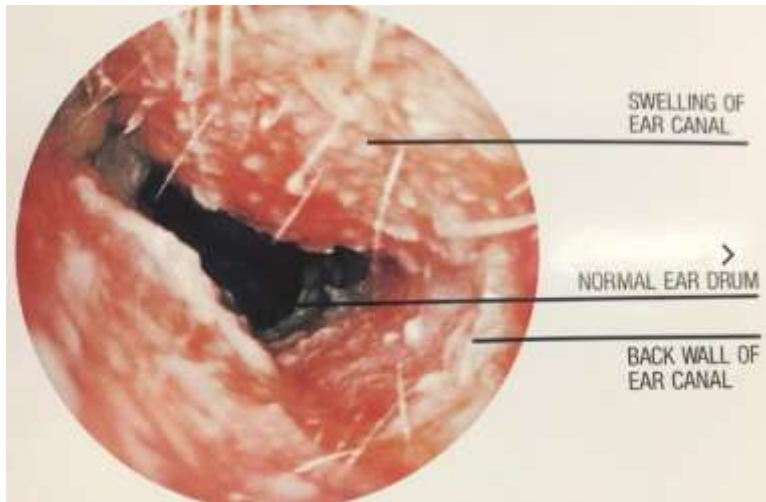




# WHAT ELSE AM I LOOKING AT?

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External Otitis, Left "Swimmers Ear"



Fungal Infection of the Ear Canal



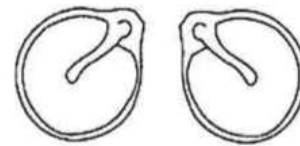
# THE NORMAL EAR DRUM

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What is a normal eardrum?



On the right drum,  
the malleus points at  
the 1.00 position.



RIGHT

LEFT

On the left drum, the  
malleus points at the 11.00  
position.

# WHAT ELSE AM I LOOKING AT?

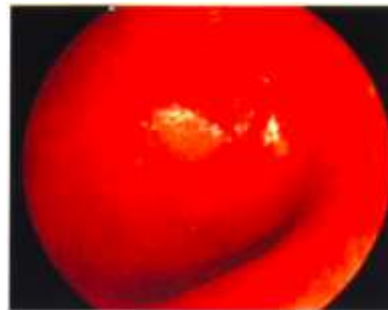
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**Abnormal:**

Tympanosclerosis



Red hot acute OM



Bulging Tympanic Membrane



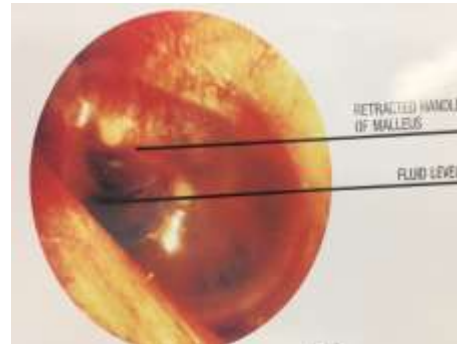
Retracted Tympanic Membrane



Tympanosclerosis & Grommet



Serous Otitis, Left



# WHAT ELSE AM I LOOKING AT?

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Abnormal:

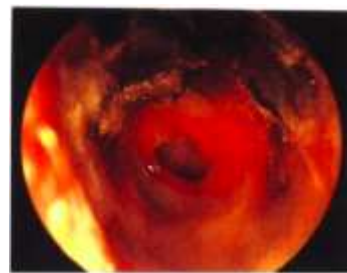
Perforations



Sub-Total Perforations



Suppurative Otitis Media



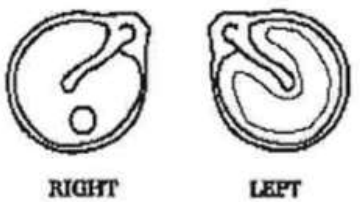
Cholesteatoma



# WHAT TO DO NEXT

Documentation – Good descriptions vital

Draw what you see

<i>OTOSCOPY</i>		<b>RIGHT</b>	<b>LEFT</b>	Please draw and label features seen.
		Describe as necessary		
<b>PASS</b>	Normal			
	Normal – wax			
	Scarring			
<b>Review</b>	Wax occlusion			
	Abnormal Eardrum			
	Perforation		Large, dry	
	Grommets	√		
	Foreign Body			

If no concerns about pain or hearing loss and Otoscopic results normal or slight wax – no further action other than documenting what you have observed

If no concerns about pain or hearing loss and Otoscopic results “not normal” – refer for another opinion about what you see – colleague, GP, ENT or review

If concerns about pain and/or hearing loss and Otoscopic results “not normal” – refer to your next in line – GP or ENT Specialist

# PNEUMATIC OTOSCOPY

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Subjective test to evaluate the mobility of the ear drum

Done with bulb pump attached to Otoscope head

Needs air tight seal in ear canal

Needs full cooperation of child/person – not moving

Needs well trained eye to judge mobility of ear drum

Tympanometry a better measure as it is objective and requires less training in doing and interpreting test results





# VIDEO OTOSCOPY

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Latest development in Otoscopy technology

Uses a camera and computer to capture image of ear canal and eardrum

Image shown on screen of Laptop or Mobile Phone

To be used in TeleOtology project in Western Australia



# CONCLUSION and ACKNOWLEDGEMENT

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Brief review of Otoscopy skills and findings

Remember what is normal and question if what you see isn't

Acknowledgement:

Telethon Kids Institute, particularly Holly Richmond for her assistance in the development of this presentation

Health Department of WA Otoscopy Manual developed in 2003 – not much has changed.