MEDICAL CENTRE NAME

Ear irrigation procedure – for the removal of ear wax (Cerumen) using a propulse II ear irrigation system

Purpose

Safely perform an ear irrigation procedure, using knowledge of its indication, precautions, and normal anatomy. To remove the cerumen (wax) [or foreign body from the ear (i.e. insect)], prevent serious infections of the middle ear and necrosis. To relieve pain and discomfort, also to improve hearing and balance.

Background

This policy is intended for registered nurses who are competent in carrying out safe and effective ear irrigation. It provides the practitioner/nurse with guidelines in assessment and examination in adult ear irrigation.

Ear irrigation should only be considered when other conservative methods of wax removal have failed (e.g. use of softeners). Patients requiring ear irrigation should always receive education and advice, which may reduce contributory factors and therefore the need for ear irrigation.

Ear irrigation is undertaken for the purpose of removing wax from the external auditory meatus where this is thought to be causing a hearing deficit and/or discomfort, or restricts vision of the tympanic membrane preventing examination, in the adult patient.

Irrigation of the ear is carried out to: -

- Facilitate the removal of cerumen and foreign bodies, which are not hygroscopic, from the external auditory meatus. Hygroscopic matter (such as peas and lentils) will absorb the water and expand, making removal more difficult
- Remove discharge, keratin or debris from the external auditory meatus

An individual assessment should be made of every patient to ensure that it is appropriate for ear irrigation to be carried out (see Appendix 1), any patient not deemed fit for ear irrigation should be offered referral to an appropriate ENT department (see Appendix 3 / 4).

Wax or cerumen is a normal secretion of the ceruminous glands in the outer meatus. It is slightly acidic, giving bactericidal qualities in both its wet, sticky form (as secreted by Caucasians and Afro-Caribbean's) or dry, flaky form (as secreted by Orientals). In addition to epithelial migration, jaw movement assists the movement of wax to the entrance of the ear canal where it comes out on to the skin. A small amount of wax is normally found in the ear canal and its absence may be a sign that dry skin conditions, infection or excessive cleaning has interfered with the normal production of wax. It is only when there is an accumulation of wax that removal may be necessary. A build-up of wax is more likely to occur in people who insert implements into the ear, have narrow ear canals, hearing aid users, older adults and patients with learning difficulties. A build-up of wax may also occur with anxiety, stress and dietary or hereditary factors. Excessive wax should be removed before it becomes impacted giving rise to tinnitus, hearing loss, vertigo, pain and discharge. If wax is removed due to the presenting complaint of hearing loss, ascertain whether good hearing is restored after treatment or if the patient would benefit from a formal assessment by the ENT surgeon or Audiologist.

Requirements

- Otoscope (piccolight with disposable tips)
- Head mirror and light or headlight and spare batteries
- Electronic irrigator (Propulse II)
- Thermometer – to check temperature of tap water at 37° C
- Noots trough/receiver
- Tissues and receivers for dirty swabs and instruments
- Disposable waterproof cape and paper towels
- Disposable apron and gloves

MEDICAL CENTRE NAME

Responsibilities

All registered nurses and medical staff who have understanding of the treatment and have been trained in the procedure of ear irrigation. Person performing the procedure must have obtained written consent using the ear irrigation consent / assessment form (see Appendix 1)

Contraindications

- History of perforated tympanic membrane (ear drum). Healed perforations lack the central fibrous layer so are weaker than non perforated TM
- History of any form of ear surgery, particularly Mastoid surgery
- History of current vertigo, Labyrinthitis or Meniere's disease
- Recent or recurrent middle ear infection
- Recent or current otitis media
- Any observed congenital defect or abnormality of the ear
- Consider patients with profound hearing loss in one ear, in the interest of protecting the 'hearing' ear from the possible complications of ear irrigation
- Untoward experience following this procedure in the past
- The patient has a cleft palate (repaired or not)

Complications of ear syringing:

1. Trauma to the external meatus, which could lead to otitis external
2. Perforation of the Tympanic membrane

Prior to treatment, all patients should have been given an information leaflet (see Appendix 2) and instructions to instil warm olive oil. This should be 2-3 drops, via an aural dropper, twice daily, morning and evening for 10-14 days prior to ear irrigation.

Procedure

1. Welcome the Patient and check their identity. Patient identity should be confirmed by the patient declaring his or her name, date of birth and home address, this must correspond with the data held on the patient computerized notes system.
2. Explain the procedure to the patient, informed consent should be obtained and documented prior to proceeding.
3. Check whether the patient has had his/her ears irrigated previously, or if there are any contra-indications why irrigation should not be performed – this information is gathered on the patient consent form, if the patient is deemed not appropriate for ear irrigation in Surgery then they should be referred to the local ENT provider of their choice (see Appendix 3 / 4 for referral documents, also see Appendix 5 patient information).
4. Wash your hands (referring to hand washing protocol), this is a socially clean procedure. Unsterile latex gloves may be worn (checking first that the patient doesn't suffer from a latex allergy).
5. Assemble equipment - Always use a new single use speculum and a new single use jet tip applicator for each patient.
6. Seat the Patient in upright chair close to work surface with equipment
7. The tap water should be 37° C and checked using the lotion thermometer. If the water is too hot or too cold, this can cause dizziness/fainting. You must inform the patient that the warm water will expand the wax, increasing the sense of deafness/fullness.
8. Fill the reservoir of the irrigator with the 37° C tap water. Set the pressure at minimum.
9. Arrange good lighting
10. Using an otoscope, examine both ears; straighten the canal by lifting the pinna upwards and backwards. Do NOT use the speculum as a lever in order to obtain a better view of the canal and eardrum, as this can be painful and cause trauma.
11. Ensure wax appears soft, no obvious sign of infection or abnormality.
12. Explain procedure to patient and ask patient to inform the nurse of any discomfort during the procedure.
13. Protect the patient with waterproof cape and couch roll or towel.
14. Show patient how to hold the Noots receiver to catch the used water.

15. Direct the irrigator tip into the Noots receiver and switch on the machine for 10-20 seconds in order to circulate the water through the system and eliminate any trapped air or cold water. This offers the opportunity for the patient to become accustomed to the noise of the machine. The initial flow of water is discarded, thus removing any static water remaining in the tube. Check the temperature of the water again.
16. Position the irrigation probe so that the straight or curved end points upwards along the posterior side of the canal, and not directly onto the tympanic membrane.
17. Warn the patient when you are about to start irrigating and that the procedure will be stopped if he/she feels dizzy experiences any pain.
18. Check at intervals for pain and examine for effectiveness.
19. The ears may require further instillation of olive oil if the wax is stubborn, or if the patient complains of any tenderness.
20. It is advisable that a maximum of two reservoirs of water is used in any one irrigation procedure.
21. Mop the canal dry as much as possible with a paper towel. The patient will need to tip his head first, to drain any residual water from the canal.
22. Discuss causes of wax build up, the natural cleaning process of ears and the importance of the patient not attempting to use cotton buds, matchsticks etc to clean their ears.
23. Wash, disinfect* and dry the equipment used as per the cleaning guidelines in the Propulse machine users manual
24. Complete patient documentation of procedure and outcome in the patient's eMRE, including what was observed in both ears, the procedure carried out, the condition of the tympanic membrane and external auditory meatus and treatment given; nurses should follow the NMC guidelines on record keeping and accountability. If any abnormality is found a referral should be made to the GP for referral to ENT Outpatient Department if appropriate.

*The disinfection procedure, as described in the propulse user manual, is required to be done at the end of each session the equipment is used.

It is recommended that you follow the manufacturer's guidelines for cleaning and disinfecting and local policy calibrating the irrigator and its components (see PAT / calibration testing policy).

Advise to patients to keep their ears healthy – (Patient leaflet : see Appendix 5)

Explain to the patient why some people produce more wax than others. It may be because of their occupation e.g. miners or fireman, who are in contact with a lot of dust. Or in industry which requires the use of ear defenders

Advise against cleaning the ear canal with cotton buds, matches, Kirby grips or similar. This can lead to the impaction of wax onto the eardrum, making it difficult to remove. This can also lead to a perforated eardrum

Cotton fibres on the bud can also work loose, acting as a foreign body, therefore encouraging the over production of wax

Advise that it may be useful to protect the ears whilst swimming, hair washing, or showering. This can be done by applying Vaseline to a plug of cotton wool and placing it **lightly** in the ear.

Outcome

To remove cerumen safely and effectively from the patients ear canal.

MEDICAL CENTRE NAME

Consent for Ear Irrigation (Appendix 1)

TO BE SCANNED INTO PATIENTS NOTES & THEN SHREDDED PLEASE

Medical Centre ADDRESS….

MRE No.	
Name	
Address	
D.o.B	/ /

Patient History – includes contraindications to irrigation		
Has the patient ever suffered from, **Vertigo Menieres disease** or **Labyrinthitis**?	**No** - Continue with assessment	**Yes** – Refer to Hospital for further care
History (circle as appropriate)	**Right ear**	**Left ear**
Had a perforation of the ear drum?	Yes / No	Yes / No
Had ear surgery? (unless grommets that have been extruded at least 18 months ago and pt DISCHARGED from ENT)	Yes / No	Yes / No
Had any discharge from the ear? / any mucous discharge in the last year?	Yes / No	Yes / No
Suffered any ill effects from syringing / irrigation in the past?	Yes / No	Yes / No
Further past medical history	**YES**	**NO**
Had a cleft palate (whether repaired or not)	**(IF YES SYRINGING FORBIDDEN!)**	
PRECAUTIONS IF: Tinnitus / Dizziness / Healed perforation		

If the answer to any of the above questions (re patient History) is YES
Please refer to GP or ENT nurse

Examination	**Right Ear**	**Left Ear**
Any evidence of acute otitis externa with pain / tenderness of the pinna?	Yes / No	Yes / No
Moist, smelly discharge?	Yes / No	Yes / No
Any signs of infection?	Yes / No	Yes / No

If the answer to any of the above questions (re patient Examination) is YES
Please refer to GP or ENT nurse

Examination continued	**Right Ear**	**Left Ear**
Has the patient Instilled olive oil twice daily for minimum 2/52? (If no please advise of protocol and defer irrigation)	Yes / No	Yes / No
Is hard / dark wax present?	Yes / No	Yes / No

If hard / dark wax is present, **advise ONE extra week of olive oil as protocol**

Other comments:

Obtain verbal consent to the procedure. **Date:** / /

Patient signature if obtained _____

Patient signs to acknowledge that risks & benefits of the procedure (ear irrigation / aural toilet) have been explained.

Ears irrigated? **Right ear** ☐ Yes ☐ No **Left ear** ☐ Yes ☐ No

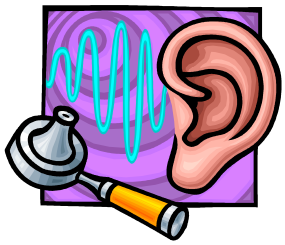
Nurse signature _____ **Date:** / /

Nurse name (please tick) ☐ S/N _____

MEDICAL CENTRE NAME

Patient information leaflet (Appendix 2)

PREPARATION FOR EAR IRRIGATION
(FORMERLY KNOWN AS SYRINGING)



Please note:

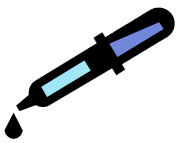
It is the Clinician's decision whether you will have your ear(s) irrigated or not. This is based on sound medical knowledge and experience. It is important to remember that the ear is very delicate and must be treated with respect and care.

An appointment with the nurse will enable an assessment of your ears to determine whether it is wax which is causing the problem, and not an underlying infection. If you do have excessive ear wax, you will be given advice on how to treat it.

NEVER put cotton wool or cotton buds in your ear(s)

If you have wax blocking your ears you are advised to buy olive oil and a dropper (cheaper from chemist). This is used to help soften the wax.

- Warm the oil by standing the bottle in warm water.
- Place 2-3 drops of the oil twice daily to the affected ear(s).
- If possible get someone to put the drops in for you.
- Use the olive oil for a minimum of two weeks



NEVER put cotton wool or cotton buds in your ear(s)

THE NURSE WILL NOT BE ABLE TO IRRIGATE YOUR EARS IF YOU HAVE NOT SOFTENED THE WAX WITH OLIVE OIL FIRST

If the ear(s) still feel blocked after using olive oil **(TWICE A DAY for TWO WEEKS)**, please make an appointment for a further assessment with the nurse. The nurse will decide whether you should carry on with the oil, have your ear(s) irrigated or refer you elsewhere i.e. GP or ENT unit. The decision whether to irrigate ear(s) is based on clinical findings.

MEDICAL CENTRE NAME

Derby hospitals referral to ENT for ear irrigation / suction (Appendix 3)

MEDICAL CENTRE NAME ***Telephone:***

Fax:

ADDRESS OF MEDICAL CENTRE …

ENT Nurses
Royal Derby Hospital
Uttoxeter Rd
Derby
DE22 3NE

Date: / /

Re: Mr / Miss / Mrs _____

Address:

_____

_____

_____

Date of Birth: _____ / _____ / _____

Dear ENT Nurse, (ENT Fax : 01332 786715)

I have examined the above patient today. His / Her problem is :

☐ Ear wax.

☐ Foreign body, He / She seems to have a foreign body lodged in the RIGHT / LEFT ear – can you please see and advise.

_____

_____

He / She has instilled olive oil for 2 weeks, but I cannot provide ear irrigation because

	Yes	No
o He / She has a history of perforations.	☐	☐
o He / She has a history of ear infections.	☐	☐
o He / She has narrow ear canals which will probably need suctioning.	☐	☐
o I have already tried to syringe him / her on 2 occasions, without success.	☐	☐

o Other :

_____

_____

Yours,

Practice Nurse (PRINT NAME) _____

MEDICAL CENTRE NAME

Nottingham hospitals referral to ENT for ear irrigation / suction (Appendix 4)

MEDICAL CENTRE NAME ***Telephone:***

Fax:

ADDRESS OF MEDICAL CENTRE …

Re: Mr / Miss / Mrs _____

Address:

_____

_____

_____

Date of Birth: _____ / _____ / _____

Date of referral: / /

ENT Nurses
Queens Medical Centre
University Hospital NHS Trust
Nottingham

Dear **QMC ENT Nurse**, (Fax referral to:0115 9709748)

I have examined the above patient today. His / Her problem is :

☐ Ear wax.

☐ Foreign body, He / She seems to have a foreign body lodged in the RIGHT / LEFT ear – can you please see and advise.

_____

_____

He / She has instilled olive oil for 2 weeks, but I cannot provide ear irrigation because:

	Yes	No
o He / She has a history of perforations.	☐	☐
o He / She has a history of ear infections.	☐	☐
o He / She has narrow ear canals which will probably need suctioning.	☐	☐
o I have already tried to syringe him / her on 2 occasions, without success.	☐	☐

o Other :

_____

_____

Yours,

Practice Nurse (PRINT NAME) _____

MEDICAL CENTRE NAME

Ear irrigation - After care advice (Appendix 5)

Patient Advice Post Ear Irrigation

- The ear canal may be vulnerable to an ear infection after irrigation. This is caused by removal of all the wax, which has inherent protective properties for the ear canal.
- Until the ear produces more wax to protect the canal keep the ear(s) that have been irrigated dry from entry of water for a minimum of four or five days after the procedure.
- To keep the ears dry when you are washing your hair, showering, bathing or swimming, insert ear plugs or cotton wool coated in petroleum jelly into the outside of the ear canal(s) to act as a protective seal.
- In the unlikely event that you develop pain, dizziness, reduced hearing or discharge from the ear after the procedure, consult with your nurse/ doctor.
- The ear canal is self-cleaning. Do not insert any implements such as cotton buds into the ear. They will damage the delicate skin lining the ear and increase the chance of you developing an ear infection, itchy ears or a problem with wax.
- To dry / clean the outside of the ear use a dry tissue or alcohol free baby wipes around and behind the ear after showering or bathing.
- **If you suffer from excessive wax; insertion of 1 to 2 drops of olive oil on a regular basis may help the ear clean itself.**
- If the entrance to the ear canal is dry and/ or itchy, you may find it of benefit to insert one drop of olive oil into the ear canal as instructed by your nurse. Keep the ears dry from any entry of water, as it may be shampoos and soaps irritating the skin.

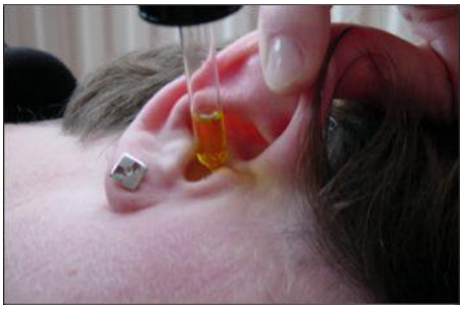
How to insert olive oil drops into the ear canal

To obtain the olive oil drops purchase olive oil and the glass dropper bottle that has been designed for ear drops from a chemist. If you have used previous wax dissolving drops, discard all the liquid, wash out the glass bottle and when the container is clean, insert olive oil (almond oil/coconut oil could be used if you do not suffer from a nut allergy).

1. Insert the closed glass dropper bottle containing the oil into a cup of warm water for two minutes. Dry the container and insert one-drop of oil onto your hand to ensure that it is not too hot. If you feel the oil is too hot wait for it to cool prior to commencing. The correct temperature of the oil should be 37°C. Alternatively, for the oil to reach body temperature (37°C) place the bottle in a pocket of your clothing currently being worn for 20 to 30 minutes.

2. Holding the prepared dropper bottle lie on a bed with the affected ear towards the ceiling.

3. With one hand pull the top of your ear upwards and outwards to straighten the ear canal.



4. Placing the filled dropper part of the bottle of oil over the entrance to your ear canal and squeeze the dropper until one drop (or the amount specified by your nurse) is instilled. Maintain that position for five minutes. Wipe the excess drops that pool outside the ear when you sit up. Do not insert cotton wool into the entrance of the ear canal as this will absorb the drops.

5. If the drops are to be inserted into both ears, repeat steps two to four on the opposite side.

Adapted from : http://www.entnursing.com/earcareadvice.htm by Hilary Harkin

MEDICAL CENTRE NAME

Ear irrigation – Aftercare advice & Alternative care

Other treatments for removing earwax

If your earwax cannot be removed with eardrops and/or ear irrigation, or if you are unsuitable for these treatments, a number of other treatment options may be considered; in both cases a referral to the local Ear Nose and Throat (ENT) department is needed. These include:

- **microsuction:** a noisy and possibly uncomfortable technique that uses a gentle level of suction under a microscope, or
- **aural toilet:** under direct vision, the specialist uses an instrument known as a Jobson Horne probe to manually remove the earwax.

Although there is no clinical evidence to show the effectiveness of mechanical methods of removing earwax (apart from irrigation), many ear, nose and throat (ENT) specialists regard microsuction as a routine treatment method.

Ear candling

Ear candling is not recommended as a method of removing earwax. Ear candling involves burning a hollow candle with one end in the ear canal. This creates a negative pressure, which draws earwax out of the ear canal.

Clinical studies have shown that ear candling is not an effective method of removing earwax. Never attempt to remove earwax yourself at home.

Further information available from: http://www.nhs.uk/Conditions/Earwax/Pages/Treatment.aspx