‘Ear ‘Tis

Newsletter for Audiometry Nurses

Summer 2021

Welcome to the issue of the ANAA Inc. newsletter

In This Issue

PRESIDENTS REPORT – DECEMBER 2021

Wishing all our wonderful Audiometry Nurses and their Families a MERRY CHRISTMAS and HAPPY NEW-YEAR and a well- deserved break.

Hopefully 2022 will be on the up and up and we will actually be able to get together to share our audiometry experiences. I know that some of you have been deployed and will resume you're audiometry roles which is great for all of us.

Tamworth is hosting a calibration and clinical skills update on March 30-31st for Northern, Hunter New England LHD. So this is a wee get together. Good practice for our Annual conference in Tamworth October 20th-21st 2022 when everybody is welcome. The annual general meeting will also be held in October.

Two new audiometry students have recently completed their studies. Jennifer Henderson who will be taking the over Armidale position in the new year.

Nadine Moxey from Forbes, who works in private GP practice and is hoping to get more hearing testing happening for the town. Presently there is a 6 month wait list.

Jenny and Nadine did their Practical component through Tamworth CHC and it would be great for more audiometry nurses to become clinical supervisors so we can offer more places for our students to complete their studies.

I have been in contact with Markeeta Marr, Aboriginal Otitis Media co-ordinator for NSW. Markeeta is keen to find out where the gaps are in audiometry services so she can set up audiometry services for those areas. Markeeta is keen to promote the Hapee and Plums and Hats programmes.

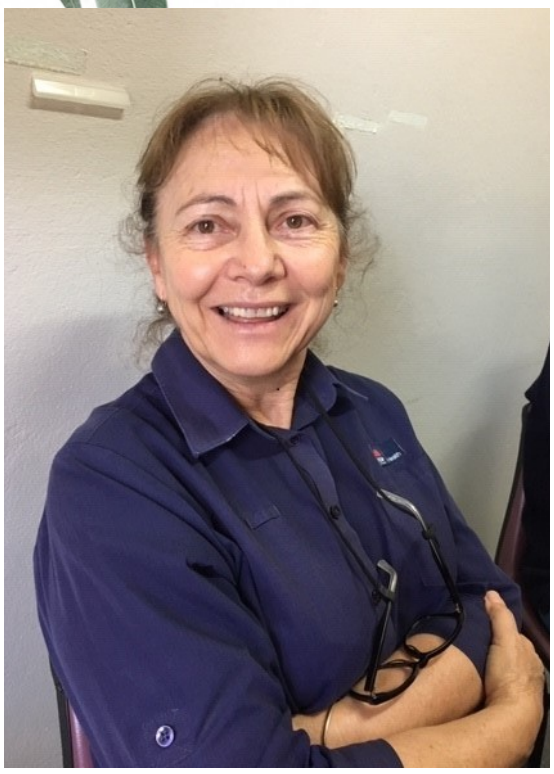
A big thankyou to Tracy Hawes who has been our president for the past 4 years. I am taking over the role for this year.

Have a great Christmas and we will be in contact in the New Year,

Cheers

PURNA

Merry Christmas to the gorgeous girls at Moree and Tamworth



Lucy Rindo-Tamworth

Marg Elliott– Tamworth

Purna Sweetman-Tamworth

Fiona Murphy-Moree

Huge Warm Welcome to our Newest Members

Full Members

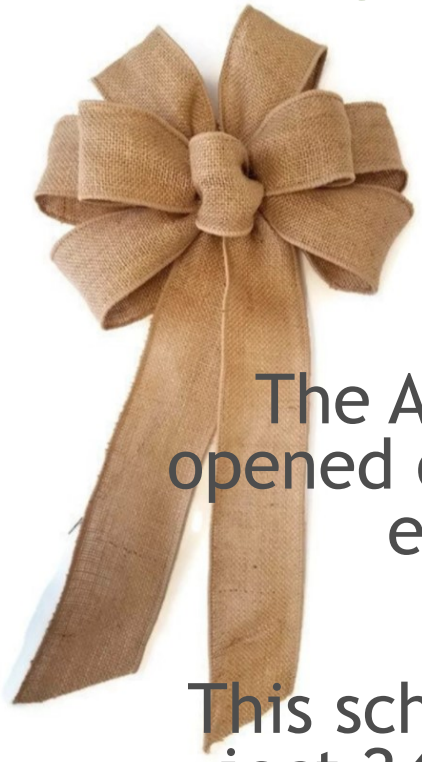
- Kaye Pearce from Cooma.

Associate Members

- Kelly Johnston – from Ballina. Kelly is doing the Audiometry course in 2022.
- Catherine McMenamin from Wyong. Works for Fullerton Health in their Earworx clinic.
- Margaret Ridgeway from Maitland. Coordinator for the SWISH program Newcastle.
- Nadine Moxey from Forbes. Currently completing the Audiometry Course with the College of Nursing.

Welcome and Best wishes to Kelly and Nadine on their current studies.

The Audiometry Nurses of Australia Scholarship



The ANAA Inc. Scholarship for 2022 opened on the 1st of December and closes on the 16th of February.

This scholarship is for the value of subject 242 Clinical Issues in Audiometry Nursing.

If you know any prospective Audiometry students, please direct them to our website.

AUDIOMETRY NURSES ASSOCIATION OF AUSTRALIA INC.

Audiometry Nurses Association of Australia Inc. (anaa.asn.au)

ANAA Inc. Scholarship for students in Audiometry Nursing

Audiometry Nurse Association of Australia Inc. represents the professional interests of Audiometry Nurses. The Association provides support, a forum for discussion on hearing health and facilitates ongoing professional development.

ANAA Inc. is involved in the education and support of students in Audiometry Nursing with the ongoing edification of Clinical Advisor competencies. Registered or Enrolled Nurses can undertake studies in Audiometry Nursing through the Australian College of Nursing.

The ANAA Inc. Scholarship has been established to help support Registered and Enrolled Nurses to undertake post-graduate studies in Audiometry Nursing so that they may pursue a career working in Audiometry Nursing services. The funds provided may be used to assist with costs involved in completing a post-graduate course of study.

The Australian College of Nursing offers two Audiometry Nursing subjects as part of the Continuing Education Program.

Both subjects 241 Audiometry Nursing & 242 Clinical issues in Audiometry Nursing must be successfully completed in order to practice as an Audiometry Nurse

60 hours of Clinical placement will be required whilst studying 242 'Clinical issues in Audiometry Nursing'. Both audiometry subjects may be articulated into the 'Graduate Certificate of Community and Primary Health Care Nursing'.

Eligibility: To be eligible for the scholarship, you must be employed within the Australian public health sector and have current AHPRA registration as an RN, EEN or EN with a view to employment within the specialty of Audiometry Nursing Services within Community Health.
Please ensure you are also compliant and up-to-date with all mandatory education as per the State/Territory local Health Department policy.

Original 2016. Revised November 2021

Scholarship Tenure and Value:

A total of one scholarship will be awarded annually at the discretion of the ANAA Inc. executive committee. Applicants are expected to complete the course within a 12 month period

At the successful completion of subject 241 'Audiometry Nursing' the recipient will receive a scholarship for the total amount of the current cost of subject 242 'Clinical Issues in Audiometry Nursing'.

Successful applicants will be notified prior to the commencement of the second subject.

Where the Scholarship recipient does not complete the Audiometry Nursing Course the ANNA Inc. executive committee will request FULL repayment of scholarship funding.

At completion of the course a copy of the course certificate will be provided to the scholarship committee.

Your letter of application should include:

1. A professional covering letter which addresses your objectives for the course and employment within the specialty area
2. A receipted copy of your course enrolment
3. A current Curriculum Vitae detailing professional activity in the last 2 years
4. A copy of your current AHPRA registration.
5. A letter of support from your current manager OR two professional references where a letter of support is not available.

How to Apply: Please submit a letter of application by:

February 16th 2022 to: Kirsten Biddle - Secretary ANAA Inc.

Email Address: Kirsten.biddle@health.nsw.gov.au

Postal Address: Inverell Community Health PO BOX 701 INVERELL. NSW. 2360

No-Bake Chocolate Weetbix Slice

Mykidslickthebowl.com (0)

7 min · 95 cals per serving · 16 servs

Read full directions

INGREDIENTS (8) | NUTRITION FACTS | SUBSTITUTIONS

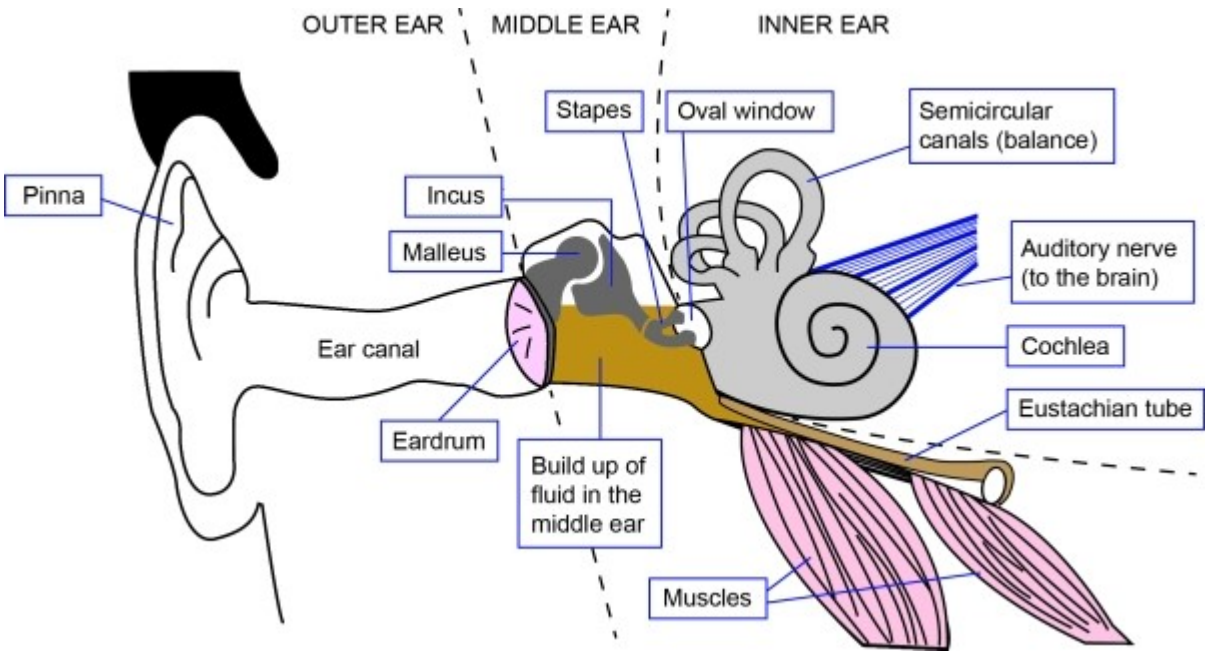
5	**Weetbix** (75g, Weetabix or Wheat Biscuits)
1 cup	**Dates** (pitted)
½ cup	**Sunflower Seeds**
½ cup	**Desiccated Coconut**
4 tablespoons	**Cocoa**
2 tablespoons	**Honey**
2 tablespoons	**Water**
40 grams	**Dark Chocolate** (optional)

Otovent

We would love to hear from nurses audiologists out there -mending or using Otovent with paediatric clients. We would love to hear your first hand experiences. For those not familiar with Otovent

A little background….

The original Otovent was developed and launched in 1993 by Kestrel Medical to help people suffering from glue ear. Glue ear is a condition, mainly found in children, where the eustachian tube which connects the back of the throat with the middle ear can't easily open to allow air to enter the middle ear. As a result, fluid starts to be secreted from the cells lining the middle ear which then accumulates and cannot be released, as the eardrum is a barrier one way, and the blocked eustachian tube the other.



This can cause hearing reduction or loss, pain, dizziness and clumsiness, sleep issues, irritability, tinnitus and speech development issues in children. In addition, glue ear causes infection and this can lead to perforated eardrums as the build up of infected fluid pushes out against the ear drum until it breaks. As a result, grommets are often used to treat glue ear.

Grommets are tiny tubes that are insert-
ed into the ear drum to keep air flowing into the middle ear. However there are serious side effects if you are a water baby. You cannot submerge the head in water, there is still a risk of infection, and you are permanently scarring and thus weakening the ear drum.

The Otovent was developed to be a less invasive, safer and less traumatic way to alleviate glue ear in children by allowing them to use the device to open the eustachian tube and allow accumulated fluid to pass out and air to travel in, thus removing the initial cause of glue ear in the first place.

The device is simple – a tiny balloon is attached to a small nozzle that plugs one nostril. You close the other nostril off with a finger and then blow out through the nostril connected to the otovent which open the eustachian tube.

Equalisation Aid For Freedivers - Otovent Dive - Go Freediving

Extracts from the

WORLD REPORT *ON* HEARING

GOALS AND OBJECTIVES OF THE REPORT

The overarching goals of the report are to make ear and hearing care a global public health priority through presenting its relevance across the life course, and to define a public health approach for addressing this form of care from the prenatal stage to adulthood and into older age. The objectives outlined in the report include:

- establishing hearing loss across the life course as a public health priority among policy-makers;
- drawing attention to the existing solutions to prevent and rehabilitate hearing loss, as well as the challenges in their delivery and access;
- documenting scientific evidence and country experiences on the approaches to build integrated people-centred ear and hearing care services, delivered through national health systems; and
- making recommendations and setting targets that stimulate country-level action for improved access to ear and hearing care, through integration of the H.E.A.R.I.N.G. package of interventions as part of universal health coverage.

World Health Organization

FOREWORD

Hearing loss has often been referred to as an "invisible disability", not just because of the lack of visible symptoms, but because it has long been stigmatized in communities and ignored by policy-makers.

Unaddressed hearing loss is the third largest cause of years lived with disability globally. It affects people of all ages, as well as families and economies. An estimated US$ 1 trillion is lost each year due to our collective failure to adequately address hearing loss. While the financial burden is enormous, what cannot be quantified is the distress caused by the loss of communication, education and social interaction that accompanies unaddressed hearing loss.

What makes this matter more pressing than ever is the fact that the number of people with hearing loss is likely to rise considerably in the coming decades. Over 1.5 billion people currently experience some degree of hearing loss, which could grow to 2.5 billion by 2050. In addition, 1.1 billion young people are at risk of permanent hearing loss from listening to music at loud volumes over prolonged periods of time. The *World report on hearing* shows that evidence-based and cost–effective public health measures can prevent many causes of hearing loss.

To guide future action, the *World report on hearing* outlines a package of interventions for Member States to adopt, and proposes strategies for their integration in national health systems to ensure equitable access to ear and hearing care services for all those who need them, without financial hardship, in accordance with the principles of universal health coverage.

The COVID-19 pandemic has underlined the importance of hearing. As we have struggled to maintain social contact and remain connected to family, friends and colleagues, we have relied on being able to hear them more than ever before. It has also taught us a hard lesson, that health is not a luxury item, but the foundation of social, economic and political development. Preventing and treating disease and disability of all kinds is not a cost, but an investment in a safer, fairer and more prosperous world for all people.

As we respond and recover from the pandemic, we must listen to the lessons it is teaching us, including that we can no longer afford to turn a deaf ear to hearing loss.

Dr Tedros Adhanom Ghebreyesus
Director-General, World Health Organization

Table 1.1 Causative factors that lead to hearing loss across the life course

PRENATAL PERIOD

GENETIC FACTORS

These include 11 syndromes currently identified as being associated with hearing loss, including Usher's syndrome, Alport syndrome, Pendred syndrome among many others *(11)*.

> ***Consanguinity refers to marriage between close biological relatives, and may be associated with higher incidence of congenital problems*** *(12)*.

INFLUENCE ON HEARING

Over 250 genes are associated with syndromic and nonsyndromic types of hearing loss, which are commonly hereditary in nature. These include autosomal dominant, autosomal recessive and X-linked genes *(11)*.

IMPORTANT CONSIDERATIONS

Genetic hearing loss is encountered more frequently in children born to consanguineous parents *(12–15)*. Consanguineous marriages are a common tradition in many communities across the world, where such unions collectively account for 20–50% of all marriages *(12, 14, 16, 17)*.

Syndromic hearing loss is accompanied by additional clinical features in the visual, nervous system, endocrine and other systems *(18, 19)*.

RELATED STATISTICS

Genetic factors are responsible for over 50% of hearing loss encountered in neonates *(18)*, and account for nearly 40% of childhood hearing loss *(20)*.

Syndromic factors account for 15% of neonatal hearing loss, while nonsyndromic hearing loss accounts for the remaining 35% *(18)*.

INTRAUTERINE INFECTIONS

Infections contracted by the mother during the intrauterine period which can lead to hearing loss. These include viral, bacterial and parasitic pathogens.

Congenital infections commonly associated with hearing loss include:

- Toxoplasmosis
- Rubella
- Cytomegalovirus (CMV)
- Herpes simplex virus type 1 and 2
- Human immunodeficiency virus
- Lymphocytic choriomeningitis virus
- Zika virus
- Syphilis

INFLUENCE ON HEARING

Most commonly associated with congenital sensorineural hearing loss which varies from moderate to profound and in some cases, with auditory processing disorders such as toxoplasmosis *(21–23)*.

At times, hearing loss may develop in the early months or years of life, as with, for example cytomegalovirus infection.

IMPORTANT CONSIDERATIONS

Presentation may be accompanied by other features of disease: Clutton's joints or Mulberry molars for example, in cases of congenital syphilis *(24)*; sequelae of congenital zika syndrome *(25)*; or cardiac or eye abnormalities associated with CHARGE syndrome in congenital rubella *(23)* depending on the cause.

RELATED STATISTICS

Viral infections cause up to 40% of all non-genetic congenital hearing loss *(22)*. Cytomegalovirus infection is a common cause, resulting in hearing loss in 14% of infants born to affected mothers. Of these infants, 3–5% have bilateral moderate to profound hearing loss *(26)*. Of infants with congenital zika syndrome, 6–68% have hearing loss. Hearing loss is the most common sequelae of congenital rubella infection, occurring in 12–19% of those affected *(22)*.

PERINATAL PERIOD

HYPOXIA OR BIRTH ASPHYXIA *(27–30)*

Lack of adequate oxygenation experienced at time of birth. This commonly manifests as a low APGAR score which is assessed in the minutes immediately following birth.

INFLUENCE ON HEARING

Severe hypoxia or anoxia experienced at the time of birth leads to irreversible cellular damage in the cochlea, with consequent sensorineural hearing loss.

IMPORTANT CONSIDERATIONS

The risk is higher in neonates that require assisted ventilation for neonatal respiratory failure.

RELATED STATISTICS

No available data.

HYPERBILIRUBINEMIA *(27, 31)*

An increase in the serum bilirubin levels, also commonly known as jaundice.

INFLUENCE ON HEARING

Neonatal jaundice is a frequent occurrence, and is mostly mild and transient, with no long-lasting sequelae. However, bilirubin-induced neurologic damage may occur in some infants and the auditory system is most sensitive to its effects. Such damage most commonly occurs within the auditory nerve or brainstem, often manifesting as an auditory neuropathy spectrum disorder.

IMPORTANT CONSIDERATIONS

Risk is greatest in infants with bilirubin levels higher than 20 mg/dL.

The hearing of premature infants is more susceptible to the toxic effects of bilirubin.

RELATED STATISTICS

No available data.

LOW-BIRTH WEIGHT *(18, 27, 32)*

A birth weight of below 1500 g, as a result of premature birth or maternal undernutrition.

INFLUENCE ON HEARING

Low birth weight is a well identified risk factor for hearing loss. It is likely that while low weight itself may not have an impact on hearing, it is commonly associated with multiple risk factors, such as ototoxic medicines, hypoxia and hyperbilirubinemia, that act synergistically leading to hearing loss.

IMPORTANT CONSIDERATIONS

Infants with very low birth weight may at times have conductive hearing loss due to transient middle ear effusion.

RELATED STATISTICS

No available data.

OTHER PERINATAL MORBIDITIES AND THEIR MANAGEMENT *(18, 27, 29)*

Includes perinatal infections and use of ototoxic medicines.

INFLUENCE ON HEARING

Certain infections occurring in the newborn period may be due to pathogens that have a direct effect on the auditory system (e.g. CMV infection and meningitis). Hearing loss can also be the result of ototoxic medicines used to treat these infections.

IMPORTANT CONSIDERATIONS

It is observed that infants managed in neonatal intensive care units (NICU) have a significantly higher likelihood of developing hearing loss, mainly as a result of the underlying conditions (e.g. prematurity or hyperbilirubinemia); use of ototoxic medicines; and exposure to high noise levels in the NICU (where decibel (dB) levels may range to 120) *(33)*.

RELATED STATISTICS

No available data.

OTITIS MEDIA* *(34–40)*

This includes a range of suppurative and nonsuppurative ear conditions characterized by inflammation of the middle ear.

INFLUENCE ON HEARING

Chronic otitis media is commonly associated with mild to moderate conductive hearing loss as a result of disruption in transmission of sound vibrations through the middle ear due to the accumulated fluid, ruptured ear drum or erosion of middle ear ossicles (bones). It may, at times, lead to sensorineural or severe hearing loss.

IMPORTANT CONSIDERATIONS

Otitis media is a leading cause for health care visits and morbidity, especially in children.

> ***Suppurative otitis media may be associated with life-threatening complications.***

RELATED STATISTICS

An estimated 98.7 million people or more, are affected by hearing loss (mild or greater) as a consequence of acute and chronic suppurative otitis media. *(41)*

*Further information is provided on page 23.

MENINGITIS AND OTHER INFECTIONS *(18, 42, 43)*

Infections common in childhood, such as measles, mumps and meningitis. Other pathogens that can lead to permanent hearing loss include:

- Borrelia burgdorferi
- Epstein-Barr virus
- Haemophilus influenzae
- Neisseria meningitidis
- Non-polio enteroviruses
- Plasmodium falciparum
- Streptococcus pneumoniae
- Varicella zoster virus

INFLUENCE ON HEARING

The mechanism has not always been well studied and could vary from middle ear effusion, caused by the infection, to auditory damage. In meningitis for example, it is likely that spread of inflammation to the inner ear results in labyrinthitis and cochlear cell damage. Damage to the auditory nerve due to inflammation or ischemia is another possibility.

IMPORTANT CONSIDERATIONS

Hearing loss varies in severity and nature and can be unilateral or bilateral.

Post-meningitic hearing loss can be unilateral or bilateral, severe or profound, and may deteriorate over time.

RELATED STATISTICS

Meningitis may be responsible for 6% of sensorineural hearing loss in children *(18)*.

Overall, an estimated 14% of those infected with these pathogens may suffer hearing loss, of which 5% can be profound.

ADULTHOOD AND OLDER AGE

CHRONIC DISEASES *(6, 8, 44, 45)*

Commonly encountered health conditions such as hypertension, diabetes and central adiposity.

INFLUENCE ON HEARING

It is not clear yet whether chronic disease denotes a possible causal relationship or only a correlation due to shared biological processes. Nevertheless, persons with these conditions are at greater risk of hearing loss.

IMPORTANT CONSIDERATIONS

Persons with chronic health conditions such as those enumerated need vigilance, with the aim of early identification and rehabilitation.

RELATED STATISTICS

Can contribute to the overall prevalence of hearing loss.

SMOKING *(46–49)*

Tobacco smoke, commonly inhaled through smoking cigarettes.

> ***Exposure to cigarette smoke clearly increases an individual's risk of hearing loss.***

INFLUENCE ON HEARING

Hearing loss could be due to the antioxidative and vascular effects of cigarette smoke; or the direct ototoxic effect that may affect neurotransmission of auditory stimuli.

IMPORTANT CONSIDERATIONS

Includes persons exposed to second-hand smoke.

It is noteworthy that the excess risk of hearing loss disappears in a relatively short period after quitting smoking.

RELATED STATISTICS

Can contribute to the overall hearing loss prevalence.

OTOSCLEROSIS *(50–52)*

Abnormal bone growth inside the ear of unknown cause, with possible genetic and environmental influences.

INFLUENCE ON HEARING

The abnormal bone growth commonly affects the Stapes (one of the ear ossicles), but in some cases also extends to the cochlea. It can cause conductive, mixed or sensorineural hearing loss.

IMPORTANT CONSIDERATIONS

Although not a common disease, otosclerosis can often be managed effectively through surgical and non-surgical means, including the use of hearing aids.

Rural Health Pro

For members who are not have not joined Rural Health Pro it is a great source of information with interesting and diverse topics for nurses of all persuasions. Search and join the join the Ear and Hearing Health group. Access the webinars via the site Rural Health Pro.

Ear & Hearing Health group — Samantha Rattos

(NSW RURAL DOCTORS NETWORK LTD)

Easy Salad/Roast Vegetable Dressing

3/4 cup oil

1/4 cup Dijon mustard

1/4 cup maple syrup or honey

1/4 cup red or white wine vinegar

In a jar -shake.

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