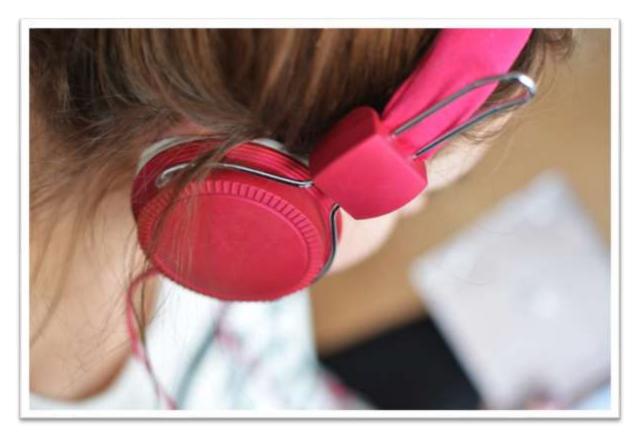
# 1 unexpected hearing boosting veggies



# 21 Unexpected Hearing Boosting Veggies



#### Introduction

Recently the scientific community has demonstrated the importance of lifestyle and environmental factors in chronic disorders. The new science is turning previous health attitudes and beliefs about ageing upside down. We now know that degenerative health is not inevitable as we age! Age-related hearing loss can be prevented — it is not inevitable and has no place in a healthy natural ageing process. In this book we are reviewing 21 ways to protect and promote healthy hearing. Although there are many novel botanical surprises constantly being discovered, this book looks at the latest science knowledge,

giving us an update on what really works to boost and protect hearing into happy longevity. It's amazing to see how our food is really our passport to maintain health in our lives.

In the US it is estimated that about a third of the population over 50 years of age hearing loss. This is roughly 27 million people and other figures suggest that 48 million people over the age of 65 suffer from some form of acquired hearing loss. As recently as 2014 researchers announced that hearing loss is linked to brain tissue loss! In other words loss of hearing can cause or contribute to degenerative brain disorders that are rampant among our elderly populations<sup>1</sup>. Science now has compelling evidence that dietary and lifestyle factors can significantly reduce and prevent this debilitating disorder that alienates millions of people globally.

This new perspective is good news because the solution to hearing optimally throughout our lives is largely within our own control — of course we need to know what helps so that we can be empowered to take back responsibility for our own health and well-being. It's simple really because the solution is found in our food — veggies, but also other natural foods that can help us to enjoy our lives according to our best health potential.

#### 1. Zinc – Super Mineral

Although Zinc deficiency does not of itself cause hearing loss research since the 1980's have confirmed that it does play a role in protecting against hearing loss<sup>2</sup>. Considering that zinc deficiency is fairly common particularly in the aged population who experience hearing loss more readily, it makes sense that increasing zinc may prevent hearing decline<sup>3</sup>.

One study demonstrated that Zinc significantly improved sensorineural hearing loss and tinnitus in 30% of participants with mild zinc deficiency. The researchers state that Zinc deficiency is one cause of

¹ http://www.hopkinsmedicine.org/health/healthy\_aging/healthy\_body/the-hidden-risks-of-hearing-loss

<sup>&</sup>lt;sup>2</sup> https://www.ncbi.nlm.nih.gov/pubmed/3492920

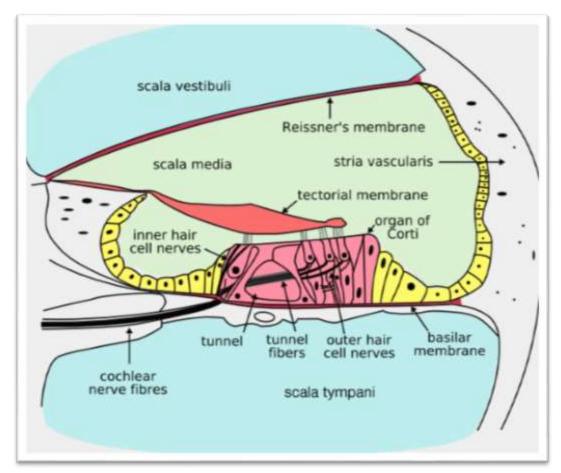
<sup>&</sup>lt;sup>3</sup> https://www.ncbi.nlm.nih.gov/pubmed/12421862?dopt=Abstract

age-related hearing loss (presbycusis) that can be prevented by increasing Zinc intake<sup>4</sup>.

**Sensorineural hearing loss (SNHL)** - is a deafness that is associated with 95% of hearing loss reports. It is usually caused by a problem found in one of the following areas:

- The cochlear (inner ear or sensory organ)
- The vestibulocochlear nerve (cranial nerve VIII)
- Other neural part

**Noise-induced hearing loss** (**NIHL**) - is a deafness that is associated with exposure to loud noises from our environment that causes irreversible damage to hairs in the cochlea resulting in deafness. Tinnitus commonly referred to as ringing in the ears is symptomatic of NIHL but may also be caused by other factors.



<sup>4</sup> https://www.ncbi.nlm.nih.gov/pubmed/2786676

Hearing loss can also be caused by infection or through some medications such as Gentamicin (antibiotic) and Cisplatin a chemotherapeutic agent.

#### Schematic Diagram of the Ear<sup>5</sup>

What do we know about the role Zinc<sup>6</sup> plays in our bodies?

- Zinc is involved extensively in cellular metabolism<sup>7</sup>
- It is involved in promoting (catalysing) over 100 enzymes
- Zinc is involved in healthy immune function<sup>8</sup>
- Zinc is vital for protein synthesis<sup>9</sup>
- Zinc is needed for wound healing
- Zinc is essential for normal cell growth and development throughout life<sup>10</sup>
- Involved in sense of smell and taste<sup>11</sup>
- Essential for gene transcription (the way that cells read genetic instructions)
- Stabilises metabolic rate and regulates blood sugar levels<sup>12</sup>

We know that zinc is an essential mineral and we need a daily intake in our diet as the body has no way to store this necessary nutrient<sup>13</sup>.

The best food source of zinc is considered to be oyster – who would have thought? Yes its true oysters contain as much as 74mg of zinc per serving.

Generally zinc can be obtained by eating red meat (used sparingly) and poultry. Good food sources would include beans, nuts (especially cashews), chickpeas, crab and lobster, and whole-grains<sup>14</sup>.

<sup>&</sup>lt;sup>5</sup> https://commons.wikimedia.org/w/index.php?curid=3202255

<sup>&</sup>lt;sup>6</sup> https://www.ncbi.nlm.nih.gov/pubmed/7749260?dopt=Abstract

<sup>&</sup>lt;sup>7</sup> https://www.ncbi.nlm.nih.gov/pubmed/9010918?dopt=Abstract

<sup>8</sup> https://www.ncbi.nlm.nih.gov/pubmed/9481116?dopt=Abstract

 $<sup>^9\</sup> https://www.ncbi.nlm.nih.gov/pubmed/7749260?dopt=Abstract$ 

<sup>10</sup> https://www.ncbi.nlm.nih.gov/pubmed/7548268?dopt=Abstract

<sup>11</sup> https://www.ncbi.nlm.nih.gov/pubmed/8835055?dopt=Abstract

 $<sup>^{12}\</sup> http://www.bmj.com/content/326/7386/409.full$ 

<sup>13</sup> https://www.ncbi.nlm.nih.gov/pubmed/11115789?dopt=Abstract

<sup>14</sup> https://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/#en11

It is usually best to take zinc through our daily diet than it is to take supplements since zinc can be toxic when taken in very high doses. If you have a zinc deficiency then a short course of supplemental zinc may be necessary.

It's important to be aware that some foods contain phytates – chemicals that bind to zinc and prevent it from being absorbed by our body<sup>15</sup>. So we need to increase our intake of zinc foods to make sure that we are not short of this potent mineral<sup>16</sup>.

#### Odd Herb Combo Makes Fat Cells Dissolve?

This odd combination of spices and herbs makes fat cells shrink, shrivel up, and even dissolve or self-destruct.

I couldn't believe it myself until I saw the research and success stories supporting it...

I suggest you start eating them tonight!

===> This "Odd" Herb Combination Makes Fat Cells Dissolve

#### 2. Magnesium – Marvelous Healing Mineral

Another mineral with reported health benefits to prevent hearing loss is Magnesium. Studies have shown that when taken as a supplement within 8 days of sudden hearing loss that participants had restored hearing. Results were less dramatic after 8 days had passed from initial onset of deafness<sup>17</sup>.

<sup>15</sup> https://ndb.nal.usda.gov/ndb/

<sup>16</sup> https://www.ncbi.nlm.nih.gov/pubmed/11285332?dopt=Abstract

<sup>&</sup>lt;sup>17</sup> https://www.ncbi.nlm.nih.gov/pubmed/12170143

Magnesium improves circulation by dilating blood vessels. Most importantly this mineral helps to control glutamate release which is currently considered one of the prime factors involved in hearing loss derived from noise. Using magnesium as a mineral taken in combination with other antioxidants is seen as optimal since the increased circulation allows the nutrients to reach all parts of the body including the inner ear and therefore is thought to create an enhanced synergistic effect in combination therapy<sup>18</sup>.

According to researchers magnesium is reported to increase hearing in both temporary and permanent noise-induced loss of hearing<sup>19</sup>. A study conducted in 2011 showed that hearing loss caused through noise was reduced in participants from 16 – 37 years of age when they took 122mg of Magnesium daily for a period of 10 days<sup>20</sup>. In an extensive literature review it was concluded that magnesium also benefitted other types of hearing loss such as sudden sensorineural deafness that was not induced through noise<sup>21</sup>.

Magnesium is found abundantly in both plant and animal food sources as well as in fresh sources of water. The best sources are found in green leafy vegetables such as spinach. Other good sources include nuts (almonds, cashews and peanuts), whole grains, legumes (black beans), and seeds. Bananas and avocados also contain magnesium. This important mineral is involved as a cofactor in more than 300 chemical reactions in our bodies and is generally found in foods that contain increased dietary fibre<sup>22</sup>.

<sup>18</sup> https://www.ncbi.nlm.nih.gov/pubmed/21708355

<sup>19</sup> https://www.ncbi.nlm.nih.gov/pubmed/15330150

<sup>&</sup>lt;sup>20</sup> https://www.ncbi.nlm.nih.gov/pubmed/15330150

<sup>&</sup>lt;sup>21</sup> https://www.uwo.ca/fhs/csd/ebp/reviews/2009-10/Coates.pdf

<sup>&</sup>lt;sup>22</sup> https://ods.od.nih.gov/FactSheets/magnesium/

Nutrition studies report that approximately 30 - 40% of the magnesium we eat is absorbed by our gut<sup>23</sup>.



#### 3. Vitamin B12 – Essential for Ear Health

Multiple studies show that this vitamin is able to keep toxic levels of homocysteine under control<sup>24</sup>. High levels of homocysteine are linked to an increased risk of developing hearing problems with low levels of Vitamin B12 associated with hearing loss<sup>25</sup>. Another study has also linked low levels of this B vitamin to tinnitus a condition where loud 'ringing' sound is heard making normal hearing difficult<sup>26</sup>.

Deficiency of this essential vitamin causes pernicious anaemia in people and can cause irreversible damage to the central and peripheral nervous systems<sup>27</sup>. Naturally a decreased oxygen supply to

<sup>&</sup>lt;sup>23</sup> https://www.ncbi.nlm.nih.gov/pubmed/1864954?dopt=Abstract

<sup>&</sup>lt;sup>24</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3773962/

<sup>&</sup>lt;sup>25</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4428469/

 $Https://www.ncbi.nlm.nih.gov/pubmed/8484483? ordinalpos=1\&itool=EntrezSystem2. PEntrez.Pubmed\_Results Panel.Pubmed\_DiscoveryPanel.Pubmed\_DiscoveryRA&linkpos=3&log$=relatedarticles&logdbfrom=pubmed $$^{27}$ https://www.ncbi.nlm.nih.gov/pubmed/14584018$ 

the ears is one sure way to induce hearing loss. Since the last decade of the twentieth century, we have known that Vitamin B12 (methylcobalamin) is able to reverse peripheral neuropathy by promoting regenerative nerve growth<sup>28</sup>. This study engaged high doses of Vitamin B12 to achieve these results.

This vitamin is usually supplemented with folic acid as a combination therapy to reduce homocysteine levels and to maintain low levels of this marker. High levels are a serious risk for cardiovascular disease and most chronic lifestyle disease including some cancers.

Vitamin B12 has a long history linking it to mental health and is essential for our central nervous system to function. Usually this remarkable nutrient is synthesised by friendly bacteria in a healthy gut environment.

In our modern lifestyle, with ready prepared convenience meals, our microbiome becomes unbalanced causing less vitamin B12 to be produced. Recently scientists have discovered the importance of healthy gut ecology in combating obesity and maintaining our health and well-being<sup>29</sup>.

Taking Methylcobalamin orally is not efficient as very little is absorbed by the body. It is usually taken sublingually, by injection or intravenously and supplementation is advised if you are deficient.

Dietary sources are found mostly in red meat – make sure that you choose free range animal products to ensure healthy quality. Red meat is better if it is wild game but should be eaten in moderation.

<sup>28</sup> https://www.ncbi.nlm.nih.gov/pubmed/8021696

<sup>&</sup>lt;sup>29</sup> https://www.scientificamerican.com/article/how-gut-bacteria-help-make-us-fat-and-thin/

#### The fun drink that makes you skinny? (try it tonight!)

Imagine if you could go out every weekend, have fun, drink alcohol, do ZERO exercise all week, and still burn belly fat.

Scientists at Washington State University have found that a little known ingredient found in a very specific alcoholic drink can increase your body's fat-burning powers by up to 370% - allowing you to burn 1-2 pounds of belly fat overnight, and achieve life-changing weight loss in less than 30 days.

>> Click here to reveal the alcoholic drink that makes you skinny.

#### 4. Folic Acid – Potent Factor for Health

Folate is another B vitamin that has been proven to promote hearing. A deficiency has been shown to promote deafness. The researchers linked this to oxidative stress and impaired homocysteine metabolism due to folic acid deficiency<sup>30</sup>. According to these scientists, this study is important as it demonstrates that nutrition is emerging as a causative factor in hearing loss.

Another stunning study has confirmed these results by showing that chronic nutritional deficiency of folate accelerates loss of hearing. This was in addition to increased levels of homocysteine and anaemia<sup>31</sup>.

Since this vitamin appears critical to our long term health it is really important to make sure that our diets reflect this priority by eating plenty of folate-rich foods. It appears that this vitamin that helps to create new cell growth is needed to reduce the 36 million people who

<sup>30</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4314232/

<sup>31</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5006747/

experience some form of hearing deficit in the US alone. Australian researchers discovered that people with levels of folic acid sustained a 34% increase in risk for hearing loss compared to a 64% decreased risk in those with high folate scores<sup>32</sup>.

Folate is found naturally in dark green leafy vegetables, fruits, nuts, beans, peas, dairy products, poultry and meat, eggs, seafood, and grains<sup>33</sup>. The foods containing the highest level of folate are listed below:

- Spinach
- Black eyed peas
- Yeast
- Asparagus
- Brussels sprouts
- Romaine Lettuce
- Avocado
- Mustard greens
- Green peas
- Kidney beans
- Roasted peanuts
- Wheat germ
- · Canned tomato juice
- Crab
- Turnip greens
- Orange
- Papaya
- Banana
- Hardboiled egg

It is exciting to discover that food is our medicine! Just through having information we are able to make changes in our food choices and dramatically improve our hearing and wellness!

<sup>32</sup> http://www.naturalnews.com/hearing\_loss.html

<sup>33</sup> https://ods.od.nih.gov/factsheets/Folate-HealthProfessional/

# 5. Vitamin A and Vitamin E – a Promising Duo

Vitamins A and E are well known these days as being powerful antioxidants with significant healing properties needed to protect against disease and ageing. Perhaps it is not so surprising to discover that Vitamin A in combination with Vitamin E is able to increase our hearing threshold by up to 15 decibels according to recent research<sup>34</sup>. The researchers found that these fat-soluble vitamins taken in combination were very effective for treating hearing loss via presbycusis. The best results were achieved in multi-combination therapy with Vitamins A, E, C, and Magnesium daily<sup>35</sup>.

Another study also revealed that this vitamin duo was able to protect against noise-induced hearing loss<sup>36</sup>. Of course it is also important to avoid noise pollution as much as possible – this preventative measure may be the ultimate strategy to boost and protect our hearing from damage by noise.

#### Alzheimer's Patients Can't Smell THIS (Can you?)

A breakthrough study at The University of Florida has unearthed a shocking link between smell, and the onset of Alzheimer's.

In fact, if you're unable to smell THIS particular food, there's a 93% chance that you're suffering from early stage Alzheimer's disease.

This food is probably sitting in your kitchen cupboard right now, so it's an easy test to do.

>> Click here to find out if you're showing the early signs of Alzheimer's.

<sup>34</sup> https://www.ncbi.nlm.nih.gov/labs/articles/3842231/

<sup>35</sup> http://american-hearing.org/high-antioxidants/

<sup>&</sup>lt;sup>36</sup> The the rapeutic effect of vitamins A and E in neurosensory hearing loss. Acta Vitaminol Enzymol. 1985;7 Suppl:85-92

#### **Sources of Dietary Vitamin A include:**

Most potent source of vitamin A comes from fish oils but can also be found in eggs. Most of our vitamin A intake comes from eating dark green leafy vegetables and orange-colored foods such as carrots, oranges, mangos, butternut and pumpkin, tomato, sweet potatoes with skin intact, and squash. Additionally it is found in apricots, spinach, broccoli and sweet red bell peppers. Fish such as pickled herring are also rich in Vitamin A.

#### Sources of Dietary Vitamin E include: Best sources of alpha-tocopherol form<sup>37</sup> of Vitamin E

- Nuts Peanut butter, almonds and hazelnuts
- Seeds sunflower seeds
- Vegetable oils wheat germ and soybean oils
- Green leafy vegetables spinach and broccoli
- Fruits Mango, Kiwi fruit

#### Best sources of Gamma-tocopherol form of Vitamin E

- Soybean
- Canola
- Corn

#### 6. Hormones affect Hearing

In the last decade researchers have made an unexpected link between a hormone and hearing loss. The study discovered that people with hearing loss had a 50% decrease in levels of Aldosterone hormone when compared to values reported in the study control group.

Aldosterone is made from cholesterol in the outer layer of the Adrenal glands. Its primary function is the regulation of the kidney. An equally important function is the regulation of Potassium and Sodium balance in the body. These nutrients play a key role in nervous system signals.

<sup>37</sup> https://ods.od.nih.gov/factsheets/VitaminE-HealthProfessional/

The balance between these two affects our entire body - including our hearing.

The inner ear contains potassium-rich fluid that is involved in translating sounds into nerve signals that can be interpreted by nerve cells. Such precise wizardry! Low Aldosterone levels correlate with poor potassium levels and hearing loss. The inner ear is the most affected making it difficult to distinguish between background noise and other sounds. The study showed that genes regulating potassium in the inner ear are not functional in those with loss of hearing and low potassium levels. The signals to the ear and the parts of the brain that decodes them may both be malfunctioning.

Another amazing finding was reported in a 2008 study where scientists were completely able to reverse hearing loss with a daily dose of Aldosterone in a 2008 animal study.

Whilst these initial results are exciting we will need further studies to understand how taking this hormone impacts our physiology. This is an important consideration since recently a study concluded that Hormone Replacement Therapy (HRT) may contribute to hearing loss. In the meantime we can increase the factors in our diet that will increase Aldosterone levels naturally. Aldosterone keeps us hydrated and manages our electrolyte balance



Symptoms of low Aldosterone level include dizziness, fatigue, low blood pressure and cravings for salty food.

#### Sources of foods that increase Aldosterone are:

Supplemental liquorice root powder (glycerrhiza glabra) is an adaptogen for the adrenals in that it promotes normal levels of hormones. Having pure sea salt (in moderation) and grapefruit are also good ways to increase levels of this hormone. Dietary potassium increases Aldosterone. It is found in avocados, dates, bananas, tempeh and vegetables. Excess Aldosterone can cause Magnesium and Zinc deficiency. Remember that it's just as unbalanced to have too much Aldosterone, as it is to be deficient.

In noise-induced hearing loss the sensitive hairs in the inner ear (cochlear) are damaged and generally it is believed that once these are damaged then it is too late in mammals! The damage is able to be reversed in birds and amphibians. Recently it was discovered that Growth Hormone was able to reverse noise damaged hearing in the zebrafish. We will have to wait and see what further research yields on this hormone as well as new gene therapeutics that may be generated in the future .

# 7. Omega-3 Fatty Acids protect more than hearing...

Recently the scientific community has demonstrated the importance of lifestyle and environmental factors in chronic disorders. The new science is turning previous health attitudes towards ageing and disorders associated with ageing upside down. We now know that ill health is not inevitable as we age - age-related hearing loss can be prevented. In this book we are reviewing 21 ways to protect and promote healthy hearing. A surprise finding is that omega-3 fatty acids are another natural therapeutic option to incorporate into our lives in order to boost hearing along with many other health benefits.

Many studies have shown that a rich omega-3 diet reduce the risks of both cardiovascular disease and Alzheimer's disease. Recently a study was concluded which proved that these omega-3 benefits also extend to reducing the risk of hearing loss too. The study demonstrated a 20% reduction in hearing loss over the 18-year duration of the project. These results were reported for female nurses that ate two portions of fish weekly compared to those that did not eat fish.

Additionally women in this study with the highest intake of long-chain omega-3 fatty acids had a 22% improvement in scores over those that did not a have high intake of these marine fats. An interesting feature of this study<sup>38</sup> was that researchers concluded that it didn't matter which type of fish was consumed as all fish whether tuna, dark fish, light fish, or shellfish conferred the same benefits! Another interesting aspect highlighted by this study was that women who had a high omega-6 fatty acid diet performed poorly in the study compared to the improved benefits of consuming fish oils. Omega-6 fatty acids generally come from animal food sources such as butter and the normal oils used for cooking in first world countries<sup>39</sup>.



<sup>38</sup> http://ajcn.nutrition.org/content/early/2014/09/10/ajcn.114.091819

<sup>&</sup>lt;sup>39</sup> http://ajcn.nutrition.org/content/early/2014/09/10/ajcn.114.091819

There has been a lot of media concern over mercury toxicity<sup>40</sup> from fish, which has caused experts to recommend avoiding eating certain fish that have higher contamination levels of this heavy metal such as:

Tuna, swordfish, Chilean sea bass and farmed salmon (Atlantic)

Exciting recent findings<sup>41</sup> suggest that eating fish with omega-3 content is enough to provide protection from mercury toxicity! Adding fish regularly to our diet may be a simple and delicious way to boost our hearing throughout our lifespan<sup>42</sup>.

#### 8. Vitamin B3 precursor

Yet another B vitamin that helps our hearing to stay intact. Scientists have published initial research findings showing that Nicotinamide Riboside (NR), a Vitamin B3 precursor is responsible for initiating a protein that is believed to prevent hearing loss resulting from loud noise exposure. The protein Nicotinamide Adenine Dinucleotide (NAD+) works inside the cochlear to provide protection against noise damage<sup>43</sup>.

The study authors noted that hearing loss is associated with mitochondrial dysfunction and NAD+ is known to help prevent oxidative damage induced by noise. The mitochondria are mini factories in our cells that produce energy and are found highly concentrated in the central nervous system, nerve cells and also in the inner ear. The study provided evidence that this Vitamin B3 precursor was able to block nerve cells from effects of damage within the cochlear<sup>44</sup>.

Another major benefit to supplementing our diet with this nutrient is that it protects us from diet-induced obesity – a super fringe benefit! In fact recent research has added obesity as a risk factor for hearing decline

<sup>40</sup> https://www.urmc.rochester.edu/pediatrics/research/Seychelles-Child-Development-Study.aspx

 $<sup>^{41}\</sup> https://www.urmc.rochester.edu/news/story/4238/fatty-acids-in-fish-may-shield-brain-from-mercury-damage.aspx$ 

<sup>42</sup> http://ajcn.nutrition.org/content/early/2015/01/21/ajcn.114.100503

<sup>43</sup> http://www.sciencedirect.com/science/article/pii/S1550413114005002

<sup>44</sup> http://www.sciencedirect.com/science/article/pii/S1550413114005002

so it makes sense that this Vitamin can aid both our hearing and beneficially regulate fat metabolism<sup>45</sup>.

Previous studies have shown that Niacin (Vitamin B3) is able to regulate healthy levels of cholesterol with this natural supplementing providing equal efficacy to statins without the harmful negative sideeffects that have increasingly been reported in connection with statin intake.

Whilst more research is being planned we can at least choose to include foods that contain high levels of this vitamin cofactor (NAD+) in our diets. Top of the shopping list for niacin rich food sources<sup>46</sup> are fish, closely followed by poultry, roasted peanuts or peanut butter, beef, grilled Portobello mushrooms, fresh green peas, sunflower seeds and avocado.

#### 9. Polyphenols in Beetroot provide Hearing **Protection**

Although beetroot juice is often promoted by the health smoothie guru's as a potent health booster, there has been surprisingly little research done to validate these anecdotal reports - until now...

Polyphenols (plant antioxidants) found in beets especially Betalain, a promising antioxidant superstar has recently generated increased attention from the biomedical community as a helpful therapeutic antioxidant for preventing degenerative disorders. Clinical studies have proved polyphenols as beneficial in preventing and regulating fat accumulation in obesity, cardiac disease prevention, and reduction of risks associated with osteoporosis and certain cancers. Betalains (Betanin) first classified by the scientific community in 2001 have proven themselves to be potent antioxidants with just over a glass of beetroot juice being able to prevent oxidative damage from free radicals production in the mitochondria of our cells<sup>47</sup>.

<sup>45</sup> https://www.scopus.com/record/display.uri?eid=2-s2.0-

<sup>46</sup> https://www.healthaliciousness.com/articles/foods-high-in-niacin-vitamin-B3.php

<sup>47</sup> https://www.ncbi.nlm.nih.gov/pubmed/11714300



In addition to their new superfood status as antioxidant healers these vegetables also contain other compounds that are important for boosting and maintaining hearing<sup>48</sup>. They are a rich source of dietary fibre, potassium, folate and manganese. They also contain zinc, vitamin C, copper and iron. No wonder medical scientists are interested in this vegetable that health foodists have promoted for decades! The rich colour and aroma of beets are derived from polyphenol content that gives beets their reported cardiovascular healing properties<sup>49</sup>. Beets also contain a high concentration of nitrates that one study has shown increases blood flow in the brain by dilating blood vessels<sup>50</sup>.

They are flagged as supporting liver function and certainly with the potent abundance of prized nutrients it is not surprising that beetroot has earned a reputation of being a health bomb<sup>51</sup>. Adding a large

<sup>48</sup> 

 $http://ajcn.nutrition.org/content/81/1/313S.abstract?ijkey=afe020d9e7cf7b918be3aab56a366bce7ed3959f\&keytype2=tf\_ipsecsha$ 

<sup>49</sup> http://ajcn.nutrition.org/content/81/1/215S.full

<sup>50</sup> http://www.sciencedirect.com/science/article/pii/S1089860310004246

<sup>51</sup> https://www.ncbi.nlm.nih.gov/pubmed/17234508

300ml of beetroot juice into our daily diet is a simple and delicious way to benefit our hearing and longevity.

#### 10. N-acetyl-cysteine (NAC)

N-acetyl-cysteine (NAC) increases levels of one of the most powerful antioxidants at work in our bodies – glutathione<sup>52</sup>. NAC has been shown<sup>53</sup> to protect noise damage in soldiers firing a gun in an enclosed environment! The cochlear was also protected by NAC from harmful effects of continuous loud noise as well as damage resulting from sudden noise<sup>54</sup>. At least one study has implicated NAC protecting the inner ear even when taken after exposure to dangerous levels of noise<sup>55</sup>. This is empowering information when statistics show that occupational noise places 30 – 40 million US workers to be at risk for hearing decline. Complete loss of hearing is caused by occupational noise in 16% of the documented cases<sup>56</sup>.

Cysteine is made in the body from an essential amino acid called methionine but is also present in animal meats and in dairy products such as yoghurt, ricotta and cottage cheese<sup>57</sup>.

#### 11. Alpha Lipoic Acid

Scientists have shown that this essential cofactor in mitochondrial enzymes is able to prevent loss of hearing due to noise damage. The secret of its success lies in its potent antioxidant ability to scavenge free radicals<sup>58</sup>. Free radicals cause oxidative stress in cells and initiate a host of inflammation cascades that causes further damage especially if there is accumulation over time.

A spate of studies are extolling the virtues of combining multiple antioxidants<sup>59</sup> to protect against harmful effects of free radicals and

<sup>52</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808688/

<sup>53</sup> 

<sup>54</sup> https://www.ncbi.nlm.nih.gov/pubmed/22122955

<sup>55</sup> https://www.ncbi.nlm.nih.gov/pubmed/17712668

<sup>&</sup>lt;sup>56</sup> http://otologicpharmaceutics.com/wp-content/uploads/2013/12/Kopke\_-\_NAC\_for\_noise\_-

 $<sup>\</sup>_from\_the\_bench\_top\_to\_the\_clinic.pdf$ 

<sup>57</sup> http://umm.edu/Health/Medical/AltMed/Supplement/Cysteine

<sup>58</sup> https://www.ncbi.nlm.nih.gov/pubmed/22326291

<sup>&</sup>lt;sup>59</sup> http://www.hearingreview.com/2008/06/the-case-for-using-multiple-antioxidants-in-hearing-disorders/

environmental pollutants<sup>60</sup>. This potent compound has a vast array of healing benefits other than helping to boost hearing by increasing mitochondrial effectiveness. It is able to exert effects in the nervous system by passing through the blood-brain barrier<sup>61</sup>. ALA is also able to help remove toxins from the brain including some of the heavy metals<sup>62</sup>.

A good source to ensure ALA in your diet is to make use of Brewer's yeast as well as eating loads of spinach and broccoli. Our veggies are now truly being recognised as our medicine – nature's own healthy plant chemistry.

### Eat THIS To Amplify "Good" Fat-Eating Bacteria In Your Gut by 400%

We've all heard of "good" and "bad" bacteria in our gut, and by "good" bacteria – nutritionists and scientists mean it...

In fact – there is a certain type of bacteria that is so "good" it actually LOVES eating fat cells.

You may be asking "how can we get more of this good bacteria"?

The answer lies in this simple home-made meal that costs exactly \$5.68 to create. It will force the "good" bacteria to multiply like rabbits, enhancing your fat burning power literally overnight.

#### 12. Melatonin

Ample research has demonstrated that the hormone melatonin is essential for promoting a deep healthy sleep. Melatonin is a hormone that is manufactured in our pineal glands. It is a super powerful natural

<sup>60</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3552536/

<sup>61</sup> https://www.ncbi.nlm.nih.gov/pubmed/22326291

<sup>62</sup> http://www.rehab.research.va.gov/jour/08/45/7/pdf/pouyatos.pdf

antioxidant that has a long history of being prescribed to successfully treat jetlag and recently has been shown to be beneficial in sleeping disorders and in ageing and Alzheimer's disease patients<sup>63</sup>. Amazingly it has also proved to be effective in preventing deafness resulting from loud noise pollution<sup>64</sup>.

Additionally, melatonin has also popped up as being effective in treating other types of hearing loss including damage caused by free radical species<sup>65</sup> such as the damage induced by chemotherapeutic agent Cisplatin. Some researchers have looked at melatonin as a possible agent to prevent age-related hearing decline<sup>66</sup> and in 2011 low plasma concentration of melatonin was strongly correlated with high-frequency hearing loss amongst an ageing population<sup>67</sup>.



Melatonin without other treatment effectively relieves tinnitus in aged people, particularly in those with sleeping problems. Other studies

<sup>63</sup> http://www.touchneurology.com/system/files/private/articles/11132/pdf/wurtman.pdf

<sup>64</sup> https://www.ncbi.nlm.nih.gov/pubmed/19051071

<sup>65</sup> https://www.ncbi.nlm.nih.gov/pubmed/10709968

<sup>66</sup> http://www.nature.com/artides/srep22690

 $<sup>^{67}\</sup> http://www.pubpdf.com/pub/23661829/The-role-of-plasma-melatonin-and-vitamins-C-and-B12-in-the-development-of-idiopathic-tinnitus-in-the$ 

have indicated that combining this hormone with other antioxidants enhanced the results obtained than when each was used alone<sup>68</sup>.

In 2009 melatonin was shown to effectively protect against hearing loss induced by Gentamicin – a routinely prescribed antibiotic<sup>69</sup> used to combat certain bacteria<sup>70</sup>.

We can increase our natural endogenous production of melatonin by supplying the base amino acid building blocks used by our body to make it. In other words we need to increase foods with a high content of Tryptophan such as bananas, pineapples and oranges. The tastiest surprise came from research that showed tart cherries as having high phytochemical composition with up to 13 times more melatonin<sup>71</sup> content than other whole food sources of this hormone<sup>72</sup>.

#### 13. Taurine

An interesting research article has linked taurine to hearing loss in a study using students as participants. This is amazing because the sample was young. This research confirms previous research which shows this amino acid as playing an important role in establishing the auditory system during development<sup>73</sup>. In another study researchers concluded that taurine protects against tinnitus and improves ability to discriminate hearing by increasing inhibitory tone and decreasing noise in the auditory pathway<sup>74</sup>. In this research taurine was shown to restore hearing ability to pretreatment levels in many of the cases studied<sup>75</sup>. Other studies have also noted that taurine can completely reverse the biochemical processes underlying hearing loss<sup>76</sup>. In research conducted on tinnitus it was revealed that taurine eliminated the condition<sup>77</sup>.

<sup>&</sup>lt;sup>68</sup> http://www.pubpdf.com/pub/23661829/The-role-of-plasma-melatonin-and-vitamins-C-and-B12-in-the-development-of-idiopathic-tinnitus-in-the-aged

<sup>69</sup> https://www.ncbi.nlm.nih.gov/pubmed/18957160

<sup>70</sup> https://www.ncbi.nlm.nih.gov/pubmed/21673362

<sup>71</sup> https://www.ncbi.nlm.nih.gov/pubmed/20438325

<sup>72</sup> https://www.ncbi.nlm.nih.gov/pubmed/22038497

<sup>73</sup> http://pubs.sciepub.com/ijcn/2/1/3/

<sup>74</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2997922/

<sup>75</sup> https://www.ncbi.nlm.nih.gov/pubmed/20868734

<sup>76</sup> https://www.ncbi.nlm.nih.gov/pubmed/18799819

<sup>77</sup> https://www.ncbi.nlm.nih.gov/pubmed/18281904

Most damage that accounts for hearing problems is not so much to do with the mechanical structure of the ear, but rather stems from the nerve cells that convert sound waves into electrical energy that is decoded by our brains<sup>78</sup>. This process is regulated by calcium ions and the flow into and out of a cell. Taurine is able to regulate and restore normal ion flow in auditory cells<sup>79</sup>.

The really good news is that taurine can be found in abundance in many foods that we naturally consume. Below is a table that shows typical quantities of taurine in serving portions of foods adapted from the USDA handbook<sup>80</sup>.

Food	Amount	Taurine (mg)
Cheese	3 ounces	1000
Cheese - cottage	1 cup	1700
Milk	1 cup	400
Yogurt	1 cup	400
Wild game	3 ounces	600
Pork	3 ounces	540
Granola	1 cup	650
Oatmeal flakes	1 cup	500
Chocolate	1 cup	400
Meat -luncheon	1 cup	390
Wheat germ -toasted	1/4 cup	350
Egg - medium	1	350
Turkey	3 ounces	240
Duck	3 ounces	240
Chicken	3 ounces	185
Sausage	3 ounces	185
Avocado - medium	1/2	75

<sup>78</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146031/

<sup>79</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2997922/

 $<sup>^{80}</sup>$  https://www.ars.usda.gov/northeast-area/beltsville-md/beltsville-human-nutrition-research-center/nutrient-data-laboratory/docs/usda-compiling-food-composition-data-for-over-115-years/

#### Olive Oil vs Coconut Oil vs Vegetable Oil (which is best?)

Guess which simple everyday cooking oil has been shown to reverse memory loss and cure Alzheimer's and other forms of dementia.

Is it...

- A) Olive oil
- B) Coconut oil
- C) Vegetable oil
- D) Sunflower oil

Have a guess and see if answered correctly, right here

#### 14. Vinpocetine

This phytochemical star is produced by the Periwinkle plant and has shown impressive results in boosting hearing in the limited number of studies conducted on this topic. In general Vinpocetine has been use as a therapeutic for 'acoustic trauma' due to its ability to ameliorate subsequent hearing loss in addition to tinnitus.



One study undertaken by Russian scientists demonstrated a significant 80% improvement in hearing<sup>81</sup>.

In another study involving 150 participants with tinnitus in one or both ears, Vinpocetine with physiotherapy displayed the highest rate of

<sup>81</sup> https://www.ncbi.nlm.nih.gov/pubmed/9757711

improvement compared to other treatments tested<sup>82</sup>. The Czech republic also conducted studies on treatments for Tinnitus and once again Vinpocetine was seen as a safe and superior treatment protecting from deafness associated with noise-induced hearing loss<sup>83</sup>.

Vinpocetine is available as a supplement in most parts of our globe and can now be used to help boost hearing. We need to watch for further studies about this botanical and its amazing healing properties.

#### 15. Acetyl-L-Carnitine

This compound is a modified amino acid that is a potent antioxidant reported to work on mitochondria and cause positive effects promoting longevity and decreasing ageing parameters. Although it is naturally produced in the body it is available as a supplement and can also be found in the foods we eat.

In terms of hearing deficits this molecule is able to protect the cochlear by preventing loss of the ear hair cells<sup>84</sup> as well as protecting hearing from sudden or continuous noise impact<sup>85</sup>.

In 2000 scientists discovered that this compound was able to reduce mutations in mitochondrial DNA. Acetyl-L-Carnitine was proposed as a viable treatment not only for noise-induced hearing loss but also for combating age-related hearing decline<sup>86</sup>. Acetyl-L-Carnitine appears to work in much the same way that NAC+ protects even if taken after loud noise exposure<sup>87</sup>. This amazing compound has also demonstrated protective hearing effects even mitigating the auditory side effects of Cisplatin – a chemotherapeutic<sup>88</sup>.

Acetyl-L-Carnitine is produced in small amounts daily by the kidneys and liver. To make this amazing amino acid we need to have sufficient

<sup>82</sup> https://www.thefreelibrary.com/Block+the+vascular+origins+of+cognitive+decline.-a0403051869

<sup>83</sup> http://www.tinnitusjournal.com/articles/multimodal-therapy-for-chronic-tinnitus.pdf

<sup>84</sup> https://www.ncbi.nlm.nih.gov/pubmed/12352659

<sup>85</sup> https://www.ncbi.nlm.nih.gov/pubmed/15966690

<sup>&</sup>lt;sup>86</sup> Sei dman MD, Khan MJ, et al. Biologic Acitivity of Mitochondrial Metabolites on Aging and Age-Related Hearing Loss. The American Journal of Otology, 2000; 21: 161-167

<sup>&</sup>lt;sup>87</sup> Du X, Chen K, Choi CH, et al. Selective Degeneration of Synapses in the Dorsal Cochlear Nudeus of Chinchilla Following Acoustic Trauma and Effects of Antioxidant Treatment. Hear Res. 2012 Jan; 283(1-2): 1-13

<sup>&</sup>lt;sup>88</sup> Gunes D, Kirkim G, Kolatan E, et al. Evaluation of the Effect of Acetyl L-Carnitine on Experimental Cisplatin Ototoxicity and Neurotoxicity. Chemotherapy. 2011 57(3): 186-94

Lysine and Methionine - another two essential amino acids. This natural health supplement is found in all protein food sources as it is an amino acid. Lamb, beef, poultry or fish and dairy all contain it. It is found in higher concentrations in red meats vs white meats and is also found in small quantities in some vegetables and in mushrooms.



Acetyl-L-Carnitine has developed a reputation as being able to increase energy levels and this special amino acid is also able to convert fat into energy through increasing the oxidation of fatty acids, which makes it a marvellous miracle worker in our modern lifestyles. For these reasons it is often marketed as a weight loss or body building supplement. If you are not eating sufficient proteins then consider supplementation otherwise enjoy your meat foods in moderation safe in the knowledge that you are protected from hearing loss and obesity!

#### 16. Gingko Biloba

This traditional Asian botanical has historically been used as a treatment for increasing peripheral and cerebral blood flow. This resulted in enhanced nerve transmission. Additionally it has been recognised as having beneficial action on hearing loss, particularly on deafness arising out of dysfunctional nerve transmission. Although very few studies have been conducted and modern results appear contradictory there are a few studies that corroborate the ancient health systems<sup>89</sup>.

One surprising result showed Gingko Biloba being equally as effective as pharmaceutical counterparts<sup>90</sup>. An animal study showed that a Gingko Biloba extract decreased oxidative damage to cochlear hair cells induced through drugs<sup>91</sup>.

Gingko can be bought as a supplement, extract or as a tea. Since it is easy and fast to grow why not consider growing it in your garden? This tree also called the Maidenhair tree. According to the Kew Royal Botanical Society the Maidenhair tree is considered to be a 'living fossil' due to the fact that it is the sole survivor of an ancient group of trees older than the dinosaurs<sup>92</sup>. Placing the leaves into warm water and letting it steep will help you feel more energised as well as boost hearing.



<sup>89</sup> https://www.ncbi.nlm.nih.gov/pubmed/12051570

<sup>90</sup> https://www.ncbi.nlm.nih.gov/pubmed/11217680

 <sup>&</sup>lt;sup>91</sup> Yang TH, Young YH, et al. EGb 761 Protects Cochlear Hair Cells Against Ototoxicity Induced by Ge ntamicin via Reducing
 Reactive Oxygen Species and Nitric Oxide-Related Apoptosis. Journal of Nutrition and Biochemistry, 2011; 22: 886-894
 <sup>92</sup> http://www.kew.org/science-conservation/plants-fungi/ginkgo-biloba



#### 17. Resveratrol – Potent Miracle Worker

This polyphenol is creating a storm in the scientific community especially in terms of life extension. It is a remarkable miracle worker with multiple healing properties constantly being discovered. It is able to halt and reverse obesity and inhibits many stem cell lines, prevents osteoporosis, protects against cardiovascular disease and extends life. It is also noteworthy in its ability to protect against Alzheimer's disease and diseases previously associated with ageing. Now this super nutrient is popping up in auditory research with powerful antioxidant ability to protect hearing even after damaging noise exposure according to several studies.

One study has proposed that it achieves this protection by reducing COX-2 inflammation cascades in the cochlea. Another study has confirmed this observation and shown that Resveratrol can decrease free radical formation following exposure to loud sounds<sup>93</sup>.

In another study age-related hearing loss was protected by Resveratrol as well as protection against acoustic trauma<sup>94</sup>. In an interesting

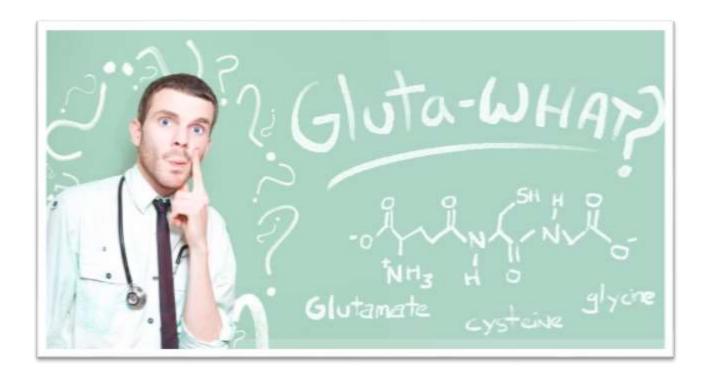
<sup>93</sup> https://www.ncbi.nlm.nih.gov/pubmed/23380763

<sup>94</sup> https://www.ncbi.nlm.nih.gov/pubmed/14595267/

animal study Resveratrol given to guinea pigs managed to protect them from Cisplatin damage<sup>95</sup>. More research is in the pipeline and promises viable therapeutic options for us to protect our hearing. We don't have to rush to the nearest health shop or pharmacy to benefit naturally from this extraordinary nutrient; instead we can just stock our cupboards with food sources containing high content of Resveratrol.

The most well-known source is found in red grape skins and is amazingly present in red wines grown at high altitudes and in increased content if corked. It is also found abundantly in peanut butter (cooked peanuts). Amazingly you may already have a diet rich in this healing polyphenol because apart from grapes and peanuts it is most concentrated in pistachios, blueberries, cranberries and all the dark berries really! Most excitingly it is found in high quantities in cocoa polyphenols found in rich dark chocolate. It is produced by plants to protect them from ultraviolet radiation, fungal infection, stress and injury and these beneficial properties are extended to us when we include these foods regularly into our diets.

#### 18. Glutathione - The Master Antioxidant



<sup>95</sup> https://www.ncbi.nlm.nih.gov/pubmed/22261612

In our section on NAC+ we mentioned that it was a precursor to glutathione production. Glutathione is so powerful it has been nicknamed 'the master antioxidant' and is created by the body to keep our mitochondria efficient. It is found in every cell but is most abundant in mitochondria in the liver and nerve cells. This wonderful naturally produced endogenous 'mother of all antioxidants' has many beneficial health properties that include:

- Immune system booster
- Increases energy
- Immobilizes toxins
- Enhances physical and mental functions
- Promotes longevity known as an anti-ageing supplement
- Improves outcomes for disorders associated with mitochondrial dysfunction
- Chronic diseases associated with glutathione deficiency<sup>96</sup> include:
- AIDS (HIV)
- Alzheimer's disease
- Arthritis
- Asthma
- Autism
- Cancer
- Chronic infection
- Attention deficit disorder
- Chronic Fatigue Syndrome
- Diabetes
- Hepatitis
- Kidney Problems
- Parkinson's disease

This molecule deserves the attention it is currently enjoying since recently it has been shown to reduce hearing loss<sup>97</sup> in addition to the properties we have listed so far! Glutathione has been deeply implicated in protection of hearing with one study demonstrating that reduced glutathione levels increased damage resulting from acoustic

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<sup>96</sup> http://www.naturafoundation.co.uk/monografie/Glutathione\_reduced\_glutathione.html

<sup>97</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3102156/

noise trauma<sup>98</sup> whereas in high levels glutathione was able to protect hearing<sup>99</sup>. Following this study, the researchers showed that glutathione is used up when the ear is exposed to toxic sound levels causing a dramatic increase in free radicals that Glutathione mops up. It is conclusive evidence for the powerful role that glutathione plays in protecting our hearing<sup>100</sup>. A couple of studies have repeated these results showing compelling evidence for the role glutathione plays in limiting hearing loss<sup>101</sup>. It is definitely worthy of praise.

## Hawaiian Dr discovers groundbreaking diabetes breakthrough

They are calling it the **biggest diabetes breakthrough** in recent times...

This weird "60-second a day" trick is reversing type II diabetes for thousands worldwide. Trial users of this trick report a 100% success track record.

And the doctor responsible is **finally** releasing it to the public...

All is explained to you by the doctor himself in **this shocking free presentation** that the diabetes pharmaceutical
companies are desperate to keep you from seeing.

#### How can we increase production of glutathione in our bodies?

We covered some of the ways when we explored NAC+ because cysteine is critical for determining how much Glutathione can be produced. Cysteine is also richly concentrated in whey that is produced from free-range grass-fed cows that are not exposed to harmful hormones, pesticides or herbicides. The whey needs to be cold processed to avoid destruction of this nutrient when exposed to heat.

<sup>98</sup> https://www.ncbi.nlm.nih.gov/pubmed/10913881

<sup>99</sup> https://www.ncbi.nlm.nih.gov/pubmed/9729286

<sup>100</sup> https://www.ncbi.nlm.nih.gov/pubmed/10913881

<sup>101</sup> http://www.sciencedirect.com/science/article/pii/S0006899397011566

Select whey that has medium chain fatty acids that make the product easy to digest. The whey should not have additional sweeteners added to it, so read your labels really carefully.

Science has shown three smart strategies to boost glutathione production as outlined below:

- Exercise significantly boosts glutathione levels
- Consuming sulfur-rich foods garlic, onions, and cruciferous vegetables such as broccoli, kale, collard greens, cabbage, cauliflower, and watercress
- Supplements milk thistle, alpha lipoic acid, selenium, vitamins C and E, and vitamins B6 and B12.

#### 19. Lecithin

Lecithin is a member of a class of lipids (fats) that are called phospholipids because they contain phosphorus. It also contains choline that is used by our bodies to make acetylcholine. Acetylcholine transmits information between nerve cells in our brain and central nervous system as well as between muscles and nerve cells in the body. Lecithin also contains fatty acids which may be saturated, monounsaturated or polyunsaturated. It is an emulsifier which simply means it is able to act as a bridge between oil and water. An example of this is classic when looking at cell membranes where a lipid bilayer creates a wall of protection keeping the inner cell contents separate from its external environment. Lecithin is an emulsifier like egg which contains high levels of lecithin and is able to disperse fat droplets into water. Lecithin is a polyunsaturated phosphatidylcholine (PPC) that is intimately involved with regulating enzymes in membranes including those involving glutathione.

Lecithin is a component of all membranes in the body. It is involved structurally and functionally in the membranes of our ears and is a big player in protecting against free radical attack in both noise and age-induced types of hearing loss according to an increasing body of scientific evidence<sup>102</sup>.

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<sup>102</sup> https://www.ncbi.nlm.nih.gov/pubmed/12297801

One study proposed that free radicals resulting from noise trauma directly damage mitochondrial DNA and produce dysfunctional mitochondria. In this study lecithin was able to regulate and prevent damage to mitochondrial DNA resulting in hearing protection<sup>103</sup>. This is amazing news for the millions of people suffering deafness and for those at risk for this awful disorder. It means that taking lecithin in our diet regularly can provide healthy mitochondria giving not only an increase in energy but a natural way to protect our ear health and hearing that occurs in age-induced hearing loss.

#### Great, so what can we do to keep our hearing from declining as we mature?

We can take lecithin either as a food supplement or we can increase the content of lecithin products that we eat. We can find it in chocolate, salad dressings, frozen desserts and baked goods. It is best to choose unsaturated forms of this molecule such as those found in eggs, soybeans and whole grains. Saturated fats are harmful for our biology's and need to be consumed with caution<sup>104</sup>.

The research is clear – eating a diet in unsaturated fatty acids that includes Lecithin protects membrane integrity and amazingly keeps hearing intact.

<sup>103</sup> https://www.ncbi.nlm.nih.gov/pubmed/12297801

<sup>&</sup>lt;sup>104</sup> http://apjcn.nhri.org.tw/server/info/books-phds/books/foodfacts/html/data/data6b.html

#### 20. Olive Oil – keeps ear canals clear

Ear wax (cerumen) is a normal product of the external auditory canal and normally doesn't cause a problem unless it builds up and impacts on our ear canal. Earwax is made up of secretions from the ear and skin cells that slough off from the inner ear that get trapped in waxy layers that can accumulate and cause discomfort and even hearing loss, tinnitus, pain and dizziness in some cases. Strangely enough it is also associated with a chronic cough because the buildup can impact on the vagus nerve which enervates the auditory canal and many organs in the body<sup>105</sup>.



Doctors constantly tell patients to avoid putting anything smaller than one's elbow into our ears. This may sound comical but it is a dramatic way to emphasise that objects such as fingers and cotton buds should not be placed into the ear canal. These days it is recognised that placing a cotton bud into an ear to remove wax causes the impacted matter to scrape against the tympanic membrane causing scars that

<sup>&</sup>lt;sup>105</sup> http://www.aafp.org/afp/2007/0515/p1523.html#afp20070515p1523-b7

can permanently damage ears and cause irreversible deafness. It is important information because ear buds are a commonly used for cleaning the ears to hear better but this actually damages the ears and over time causes deafness!

Removing impacted ear wax is one of the main ear, nose and throat (ENT) procedures most commonly performed in primary care facilities. It is estimated that about 4% of primary care patients seek help to remove impacted ear wax<sup>106</sup>.

Ear wax can easily be removed through a very basic painless and non-invasive procedure using olive oil! Placing olive oil drops into each ear before sleep allows the ear wax to soften and this can be easily drained in the morning shower by letting warm shower water rinse the wax out. Olive oil is the perfect accompaniment to keeping our ears clean and clear of debris because it has a host of natural healing properties including the fact that it is anti-microbial so is able to protect infection from bacterial buildup in trapped earwax.

# #21 Coenzyme Q10 – Oxygen is Important for Hearing

Coenzyme Q10 (CoQ10) is another natural chemical with powerful antioxidant properties that is vital in supporting mitochondrial function<sup>107</sup>. It is considered one of the most important factors involved in promoting heart and brain health. This water soluble molecule has been shown to help regulate and protect cardiac function and more recently auditory researchers have shown that supplementation reduces death of hair cells<sup>108</sup> and protects against sudden noise-induced hearing loss<sup>109</sup>.

In three separate studies<sup>110</sup> researchers have shown a significant reduction in sensorineural hearing loss and presbycusis through daily

<sup>106</sup> http://www.aafp.org/afp/2007/0515/p1523.html#afp20070515p1523-b7

<sup>107</sup> https://www.ncbi.nlm.nih.gov/pubmed/20818733

<sup>&</sup>lt;sup>108</sup> Fetoni AR, Troiani D, et al. Efficacy of Different Routes of Administration for Coenzyme Q10 Formulation in Noise Induced Hearing Loss: Systemic Versus Transtympanic Modality. Acta Oto-Larynglogica, 2012; 132: 391-399

<sup>&</sup>lt;sup>109</sup> Hirose Y, Sugahara K, et al. Effect of Water-Soluble Coenzyme Q10 on Noise-Induced Hearing Loss in Guinea Pigs. Acta Oto-Laryngologica, 2008; 128: 1071-1076

<sup>110</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1995566/

supplementation with CoQ10. Successful results were seen with doses from 160 – 600 mg of this coenzyme daily. A smaller pilot study also demonstrated this enzyme's ability to relieve tinnitus in the study participants whose blood levels of this important cofactor were reduced before taking CoQ10 supplementation 112.

In another fascinating yet small research project, researchers have linked CoQ10 to slowing down the progression of hearing loss associated with mitochondrial genetic dysfunction<sup>113</sup>.

This incredible nutrient was discovered by US scientists in 1983 and since then we have seen an intense amount of studies that have explored CoQ10's amazing ability to protect and restore mitochondrial function in a variety of chronic lifestyle disorders. Recently as we have discovered it has been shown to boost hearing through its protective healing properties. By reducing free radical formation and ensuring mitochondrial efficiency it may become a common household name in the foreseeable future because 95% of our body's energy is produced by the mitochondria. One thing is certain – CoQ10 is going to be given more funding to explore its role in human degenerative and energy deficient diseases. It is interesting that supplementation improved energy production by 29% even in people with inherited mitochondrial defects<sup>114</sup>.

Some medication may interfere or cross-react with CoQ10 supplementation such as the statins and warfarin so it is better to seek advice if you want to take supplementation which is widely available in health shops and pharmacies. The future looks exciting but what can we do to get this coenzyme now – without supplementation?

Yes you guessed right – CoQ10 is in the veggies – in particular cruciferous vegetables such as cauliflower and broccoli. Other sources<sup>115</sup> include:

#### Herring

<sup>111</sup> https://www.ncbi.nlm.nih.gov/pubmed/20443731

 $<sup>^{112}\;</sup>https://www.ncbi.nlm.nih.gov/pubmed/17210337$ 

<sup>113</sup> https://www.ncbi.nlm.nih.gov/pubmed/16092542

<sup>114</sup> http://lpi.oregonstate.edu/mic/dietary-factors/coenzyme-Q10

<sup>115</sup> http://lpi.oregonstate.edu/mic/dietary-factors/coenzyme-Q10

- Rainbow Trout
- Beef
- Poultry
- Soybean oil
- Roasted peanuts
- Canola oil
- Sesame seeds roasted
- Pistachio nuts roasted
- Orange
- Strawberries
- Eggs boiled



#### Amazonian Tribe "Immune" To High Blood Pressure Say Experts

A small, isolated tribe living in the depths of the Amazonian rainforest are effectively immune to Hypertension say leading researchers.

It's all because they eat this fruit and herb combo daily.

>> Eat this Amazonian Fruit+Herb combo to safely lower blood pressure