

The goal of the Health Education and Wellness Rotary Action Group is to promote good health and wellness through healthy lifestyle choices and disease prevention. The emphasis is on building awareness, promoting education, and providing information to help achieve and maintain good health and to utilize effective prevention in an integrated way. Rotary members are encouraged to promote the action group in their districts and especially in their Club's.

H.E.W.R.A.G.

NEWSLETTER MAY 2024



MAY IS YOUTH SERVICE MONTH

Rotary clubs around the world give special emphasis to projects and programs which serve children and young people.

2024 May

www.hewrag.org hewrag@gmail.com

Greetings!

As HEWRAG begins its twelve year, we continue to take seriously our commitment to support Rotarians to do "Good in the World."

HEWRAG continues our emphasis on five areas of public health: Medical Missions and Health Fairs; Cervical Cancer Prevention and Elimination; Tuberculosis Awareness and Prevention; Autism Awareness and Empowerment; and Oral Health and Nutrition. We have also recently added a new area of emphasis namely Prostate Cancer Prevention. Please visit our website for details. If you are working in these areas or if you have another area of public health that you'd like us to consider adding, we encourage you to contact us.

With the successful launch of our 1st Chapter in District 2452 we would like other Districts to start either District or Country chapters to follow this example. It has been approved by RI and we have all the steps to facilitate this action if a member wishes to start a new chapter in their area. Please email us for details at josie@beachroad.co.za or ramisarkis@hotmail.com. Our Chapter in District 2452 recently held their second annual conference – details inside!

We will be present in the Hall of Friendship at the RI Convention in Singapore in May, please pop by to say hello and attend our information meeting on Monday 27th May at 4:30pm the details of which will be published on the conference app.

Unlike most other RAGs we do not charge an admission fee and depend on donations from our members to run our webpage and admin costs, I realise that these are hard times but if you could spare a few \$s please go to the donations page of our website and send them to us. We have recently received donations from Rotary Clubs in S Africa and the USA which have assisted us greatly and for which we are extremely grateful. www.hewrag.org/donate

We are looking for members to stand for elections to the new board any interested member should please contact either myself or PDG Karl Deikman at kddiekman@aol.com if interested. We will be holding our AGM in June via Zoom, date and time to be confirmed by email together with log on details soon.

Stay safe and well
Josie Norfolk
Chair

11 Things That May Make Birth Control Less Effective

Medication, Antibiotics, Herbal remedies, Forgetting the pill, Late injections, Late replacements, Misuse of barriers, Sex while fertile, Sex after vasectomy, Not breastfeeding, Excess body weight

Though commonplace for many people, birth control is a complex process that requires careful follow-through. Keep reading to learn about simple things that can render birth control ineffective.

Many birth control options provide excellent protection against unwanted pregnancy with perfect use, but perfect use isn't always possible.

Missing a dose, not abstaining during fertile windows, or not replacing your birth control method on time may reduce effectiveness.

Having overweight or obesity and taking some medications can also reduce effectiveness.

There are many birth control options available to reduce the chance of unplanned pregnancy. It's common to choose a contraceptive method based on how well it's supposed to work.

However, there are factors that can make several kinds of birth control less reliable.

Most statistics that explain effectiveness are based on perfect use, meaning the method is used exactly as directed. But it's important to remember that most people aren't perfect with their birth control.

A better figure may be typical use. Oral contraception, as an example, is more than 99 percent effective when used perfectly. That drops to 91 percent with typical use.

There are other factors besides not using the method perfectly that can reduce birth control effectiveness. Read on for some examples.

1. Taking certain medications

Some prescription medications may make birth control less effective. These include:

enzyme-inducing seizure medications for epilepsy

some antiretroviral therapies (ART) for HIV

griseofulvin, an antifungal treatment

2. Taking some antibiotics

Don't worry — most of the time, antibiotics cause no problems with contraception.

However, this isn't always the case. One antibiotic called rifampin reduces concentrations of estrogen in the blood.

3. Taking some herbal remedies

Natural, integrative, and herbal remedies can reduce the efficacy of some birth control. St. John's wort, for example, makes many drugs less effective^{Trusted Source}, including the birth control pill.

4. Forgetting to take the pill or taking it late

There are different brands of birth control pills, but all work on a specific schedule. Forgetting to take a dose or taking it late can mean a greater chance of pregnancy.

As an example, if you're on progestin-only pills, you must get your dose within the same 3-hour window every day for maximum effectiveness.

5. Not getting injections on time

Birth control injections also contains progestin. If you get the birth control shot, you'll require a new shot every 3 months^{Trusted Source}.

Not getting a new shot from a doctor on time can reduce the effectiveness of this method.

6. Not changing patches or rings on time

Contraceptive patches and rings also have to be changed on a regular schedule. In addition, they have to stay in place in order to properly protect against pregnancy.

7. Not using condoms, diaphragms, or other barriers properly

Common prophylactics can fail if they aren't used the right way.

Take care when opening a condom package not to tear the condom, and hold the tip when putting it on to make sure air doesn't get caught inside.

Follow instructions closely when using a diaphragm, as timing makes a difference. For example, if you put in a diaphragm longer than 2 hours before sex, the spermicide won't work as well and you'll get less protection.

8. Not abstaining when you're fertile

Some people use fertility awareness as a method of contraception. This means taking precautions when you're most likely to get pregnant according to your menstrual cycle.

This is considered one of the least effective methods of contraception^{Trusted Source}, but it works for some people. Not abstaining when you're fertile or not wearing a condom during sex on those days reduces the effectiveness of this method.

9. Not waiting long enough after vasectomy

Vasectomy is one of the most effective ways to prevent pregnancy. But for the first 3 months Trusted Source after the procedure, couples should use an additional method of birth control.

10. Not breastfeeding often when relying on LAM method

Lactational amenorrhoea method (LAM) Trusted Source is a temporary birth control method used by those who have just had a baby. If you're breastfeeding your baby and haven't yet menstruated after having the baby, your body will temporarily stop ovulating.

However, for this to be most effective, you must breastfeed often.

11. Obesity or excess weight

There's some evidence that obesity can reduce the effectiveness of some birth control methods, but it depends on the type.

A 2013 review of studies Trusted Source reported that the follow birth control options may be less effective for women with overweight or obesity:

combined oral contraceptives

the patch

emergency contraceptive pills

Some evidence Trusted Source suggests continuous use or a higher dose of oral contraceptives to increase efficacy in people with overweight or obesity.

When to see a doctor or change birth control

Many birth control methods come with physical and emotional changes. If this happens to you, you can work with your doctor to find another solution that balances your birth control needs with the side effects.

Here are some reasons to see a doctor:

It's hard to use your current method in the right way. For example, you may have trouble remembering to take your pill on time.

You have abnormal bleeding, bloating, migraines, or mood swings. Sometimes these are normal side effects of the birth control, but they can also signal serious underlying medical conditions.

You experience a low sex drive. Sometimes birth control pills cause reduced interest in sex. If this bothers you, you may want to change your method to something that doesn't have this effect.

You may also want to see a doctor to change your birth control method because your personal preferences have changed. For example, you may want to consider an intrauterine device (IUD) so that you don't have to remember to take a pill to prevent pregnancy.

The takeaway

Individuals and couples have several options to help with family planning and reduce the chance of unwanted pregnancy. Many of these methods are highly effective, but imperfect use of birth control can make them less so.

A number of medications, some lifestyle factors, and some medical conditions can also cause birth control to work less effectively.

Talk with your doctor to find a method you can use the in right way that offers the benefits and level of protection that's best for you.



TOWARDS ELIMINATION OF CERVIX CANCER IN GUATEMALA

A cervix cancer screening Rotary global grant in partnership with the Guatemalan NGO Asociacion Companero Para Chirugia (ACPC) is having amazing results. Guatemala has one of the highest rates of cervix cancer in Latin America with 20/100,000 women contracting this disease yearly. Approximately one in every 50 women will contract it in their lifetime and with a limited health care system most will die of it. It is also probably much higher as many never reach the healthcare system to be documented. We have found this in a marginalized group of women living on the city dump where 24% needed treatment.

In January 2022 the global grant 2001428 was initiated to solidify prevention of cervix cancer in 5 states by screening 5000 women, educating 49 nurses in 5 states, equipping 7 Ministry of Health nursing stations with examining tables, medical lamps, and thermocoagulators, and equipping the NGO mobile team with thermocoagulators. We have recently expanded the project to buy a hand held culposcope that uses artificial intelligence to diagnose an abnormal VIA exam. This increases the accuracy from a 60% detection rate to 90% .

In only 18 months these targets have not only been achieved but greatly exceeded, reflecting the enthusiasm at all levels of the government, the community and the women themselves This gives us the hope that we can employ this model for the entire country . We have now screened 8,861 women, set up clinics in 6 states, educated and certified 65 healthcare staff and have 5 months to go.

There are a number of factors that have contributed to the success of this project.

First the partnership , 5 rotary clubs and districts- Calgary the international host , Port Moody, Canada, Woodlands California USA and Rotario La Reforma , Guatemala- the host club with support from Rotary International and the most amazing NGO ACPC. This NGO has been running mobile screening clinics with VIA for a number of years. The grant has enhanced their efforts providing funding for training camps providing them with supplies ,equipment, and especially 9 thermocoagulators. The heating probe used to destroy the cancerous tissue is powered by a lap top sized instrument as compared to the 200 pound tanks of compressed CO2 required for cryo ablation., This allows them to be much more efficient in reaching remote communities .It also equips the rural nursing stations with the thermocoagulators so they could see and treat in real time a patient with an abnormal VIA. Without the ability to immediately treat a patient, largely removes the incentive for the nurse to screen. Many of the patients come in from remote mountain towns for emergency care and the opportunity to attend a mobile clinic is not practical. As well this NGO has hired and trained local health promoters that have graduated from high school. They educate the local women how to prevent cervix cancer as well as menstrual hygiene. To date 2506 women have attended these sessions. Without this strategy, reaching the women who largely speak only one of 24 Mayan dialects would not be possible.

Our project will finish in January 2024 likely with an estimated 10,000women screened. It is sustainable as a result of the education provided for the rural families, the training and certifying the healthcare team and providing relatively inexpensive equipment

in each nursing station allowing a see and treat model of prevention .

The results have been so encouraging that we are planning a phase 2 Grant . This will expand the program to 11 states . It will screen 25.000 women, educate 150 more healthcare persons ,educate 10,000 women and girls on sexual health and vaccinate 2500 girls. It will routinely include mobile culposcope assessment on travelling missions and utilize HPV testing for remote and difficult to reach women. Hopefully this will be ready for June 2024.





GUATEMALA GLOBAL GRANT Towards elimination of Cervix Cancer

Accomplished & estimated results

| SERVICES PROVIDED | Accomplished | | Estimated to be accomplished | | TOTAL |
|---|--------------|-------|-------------------------------|--|---------------|
| | 2022 | 2023 | ACPC Remaining Rural Missions | MoH certified Nurses & Doctors reports | |
| Women screened - Visual Inspection with Acetic Acid (VIA) | 1533 | 1,008 | 500 | 5,820 | 8,861 |
| Treatments (termo, biopsias, references, etc) | 49 | 68 | 5 | | 122 |
| Medications provided to patients for infection, pain, etc. | 150 | 219 | 50 | | 419 |
| Vitamines distributed to patients | 742 | 772 | | | 1,514 |
| Other diagnosis and referrals for patients to receive surgery | 150 | 100 | 50 | | 300 |
| Women attending education sessions | 1556 | 700 | 250 | | 2,506 |
| TOTAL SERVICES PROVIDED DURING THE GRANT PERIOD | | | | | 13,722 |

| HEALTH CARE STAFF TRAINED AND CERTIFIED | 2022 | 2023 | TOTAL |
|---|-----------|-----------|-----------|
| Certified on VIA Screening | 27 | 24 | 51 |
| Certified on Thermocoagulation | 7 | 7 | 14 |
| | 34 | 31 | 65 |

Achieved vs. expected results

Solidify prevention in 5 states



*Alta Verapaz, Baja Verapaz, Quiché, Jutiapa,
Chiquimula, and Huehuetenango
(6 states)*



Screen 5,000 women



*8,861 screened women
13,722 services provided*



Educating 49 nurses and technicians



*65 educated and certified
healthcare staff*



Achieved vs. expected results

Select and purchase equipment



9 Thermocoagulators
9 Examining tables
1 Colposcope
✘ 9 medical lamps



Equip 2 NGO mobile clinics and
7 Ministry of Health clinics



2 NGO & 6 Ministry of Health
clinics equipped
✘ 1 Ministry of Health clinic pending



Introduce the use of the EVA
system



EVA Pro Colposcope
purchased and in use
to train nurses



✘ Not used for screening yet

✘ Not yet completed, but in process.

Justification

Project Phase 2

| | | |
|--|--|-------------------------|
| Cancer cervicouterino en Guatemala | Causa #1 de muerte por cáncer en la mujer | |
| | 2012 | 2020 |
| Incidencia de cáncer cervicouterino normalizada por edades (GLOBOCAN) | 12,2 mujeres de 100,000 | 20,3 mujeres de 100,000 |
| Muerte por cáncer cervicouterino (2012) | 672 | 810 |
| | < 2 mujeres al día | > 2 mujeres al día |
| Relación entre la mortalidad y la incidencia de cáncer cervicouterino (2020) | 56 de 100 mujeres con cáncer cervicouterino mueren | |

GLOBAL GRANT PHASE 2

Needs assesment

Ministry of Health

- Expand cervical cancer prevention and treatment through VIA, which has proven to be the most effective technique for rural Guatemala, and Thermocoagulation.
- Include the HPV screening approach.
- Support the promotion of VIA clinics and vaccination.
- Support with equipping mobile clinics with thermocoagulators and examining tables.
- Support with promotional materials

Patients

- Thank you for caring for us
- Grateful for you to travel hours to come and help us.
- We need you not to stop providing these services in rural communities.
- The national health system does not come to these hard-to-reach communities.
- Please expand publicity so more women can take advantage of your services.
- I have cervix cancer, but I came because I want other women to know they can survive if they get screened on time.
- You should be proud that families of moms, daughters, sisters, and aunts, came today.

Ministry of Health

- Continue providing training and certification opportunities for nurses and technicians on VIA and Thermocoagulation.
- Increase the number of annual training workshops for Ministry of Health Staff.
- Continue supporting the current states, but possibly expand to others needing help.
- Help to purchase megaphones.
- Donate other supplies for VIA screenings.

Other NGOs

- Jointly organize screening mobile clinics to help women in their working areas.
- To allow their nurses to be trained and certified to continue providing community services.
- Work together on raising awareness to prevent cervix cancer.
- Help to equip their clinics with thermocoagulators.
- Organize medical mobile clinics.
- Exchange experiences and knowledge

Trained nurses

- Grateful for the opportunity they received to be trained and certified.
- This training course is more complete than the one the Ministry of Health taught.
- Hopefully, each certified nurse can receive a Thermocoagulator to treat positive women on the same day.
- The follow-up to referred patients is expensive.
- Other nurses in their health districts should be certified.

Compañero para Cirugía staff

- Hire more nurses and staff to achieve the expected results.
- Hire a Medical Doctor/Gynecologist to be trained and become the trainer for future training workshops so that there is no more dependency on Faith in Practice.
- Provide thermocoagulators to all districts whose nurses were certified for treatment.
- Purchase a microscope.
- Expand to other states to help more women.
- Organize more mobile clinics during the year.
- Include menstrual education for girls

Potential objectives

Continue providing screening services and education for women

- Run 8 mobile missions
- Introduce HPV testing for remote communities and NGO Safe Passage.
- Screen 20,000 women
- Educate 10,000 women and girls on menstrual and women's health.

Expand services coverage

- Expand the screening to 5 more states for a total of 11.
- Fund cancer patients to be accompanied to regional cancer centers and treated by a trained support person.



US\$ 190,000

Train and certify healthcare providers on screening and treatment services

- Run 6 training camps.
- Train 150 more nurses to see and treat abnormal VIAs.

Continue building local capacity

- Equip all nursing medical centers with thermocoagulators.
- Hire admin staff for training & evaluation.
- Provide support to promote vaccination services at mobile clinics and education sessions for 2000 girls and boys.
- Purchase a second colposcope
- Purchase a microscope
- Train and fund 15 health promoters from different states.
- Fund equipment and consumable supplies for screening activities.

| GLOBAL GRANT PROPOSAL Phase 2 Towards elimination of Cervix Cancer in Guatemala Asociación Compañero para Cirugía (ACPC) | | | |
|--|------------------|----------------------|----------------------|
| DESCRIPTION | QUANTITY #PEOPLE | UNIT COST DAILY RATE | GRAND TOTAL |
| DIRECT COST \$ | | | |
| Medical equipment | | | |
| Thermocoagulators C3 with adaptors and power supplies, battery packs and carrying | 25 | \$ 1,350.00 | \$ 33,750.00 |
| EVA Pro Colposcope | 1 | \$ 5,500.00 | \$ 5,500.00 |
| Microscope | 1 | \$ 3,000.00 | \$ 3,000.00 |
| Custom/Taxes | 1 | \$ 5,000.00 | \$ 5,000.00 |
| Examining tables | 25 | \$ 110.39 | \$ 2,759.74 |
| HPV testing kits | 50 | \$ 50.00 | \$ 2,500.00 |
| TOTAL | | | \$ 52,509.74 |
| Medical supplies | | | |
| Disposables especulums for equipped rural clinics and for mobile clinics. | 3000 | \$ 0.13 | \$ 389.61 |
| Disposables gloves | 3000 | \$ 0.03 | \$ 97.40 |
| Medicines | 1 | \$ 1,948.05 | \$ 1,948.05 |
| TOTAL | | | \$ 2,435.06 |
| Transportation expenses | | | |
| Gasoline | 18 | \$ 194.81 | \$ 3,116.88 |
| TOTAL | | | \$ 3,116.88 |
| Training Camps room and board | | | |
| Lodging and meals | 6 | \$ 10,000.00 | \$ 60,000.00 |
| TOTAL | | | \$ 60,000.00 |
| Promotional materials | | | |
| Radio spots in local languages | 16 | \$ 129.87 | \$ 2,077.92 |
| Flyers | 16 | \$ 129.87 | \$ 2,077.92 |
| Promotional banners | 16 | \$ 129.87 | \$ 2,077.92 |
| TOTAL | | | \$ 6,233.77 |
| Nursing services to provide VIA screenings on each mission | | | |
| Nurse 1 Salary | 1 | \$ 17,336.78 | \$ 17,336.78 |
| Nurse 2 Salary | 1 | \$ 10,993.77 | \$ 10,993.77 |
| TOTAL | | | \$ 28,330.55 |
| Health Promoter (Wage) 2 x mission | | | |
| Health Promoter (Wage) 2 x mission | 32 | \$ 194.81 | \$ 6,233.77 |
| TOTAL | | | \$ 6,233.77 |
| Project Director | | | |
| Salary | 1 | \$ 39,730.60 | \$ 39,730.60 |
| TOTAL | | | \$ 39,730.60 |
| GRANDTOTAL | | | \$ 198,590.36 |



VIVIR Y TRABAJAR DESDE

Thank you.

The Sound of Hope

An Initiative
by Rotary Club
of Lebanon
International

Lebanon: A Triple Disaster

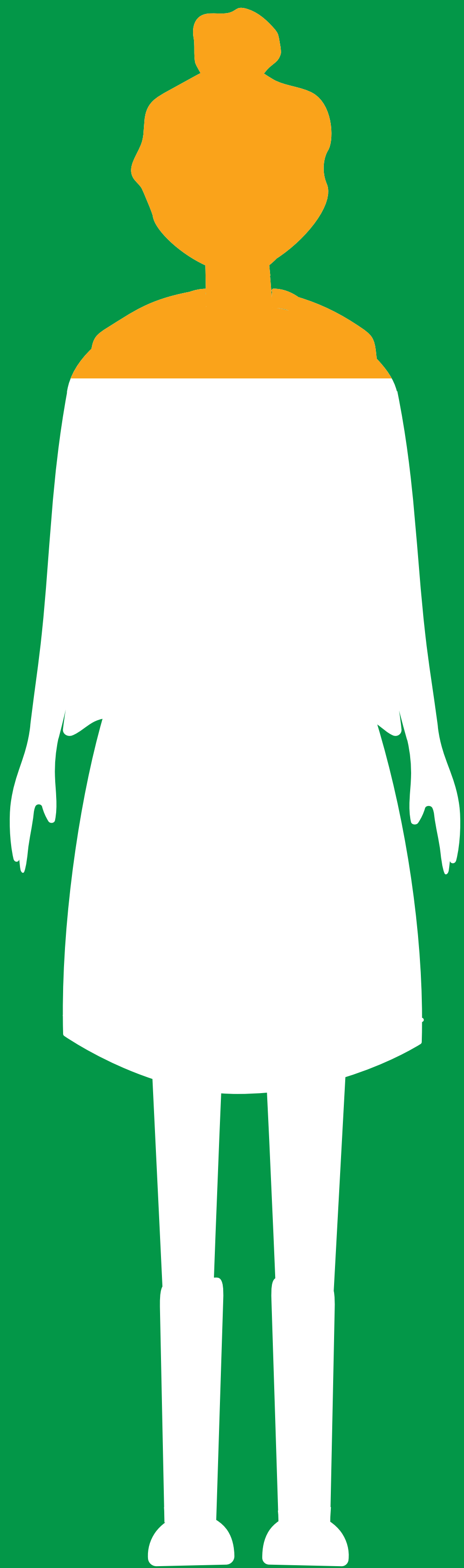
Since 2019, Lebanon has been dealing with dire consequences from its economic crisis, the Beirut Blast, and the devastating impact of the COVID-19 pandemic, plunging it into a state of darkness and despair and collapsing its healthcare sector.

With nowhere to turn to and no functional healthcare system in place, underprivileged patients suffering from profound hearing loss miss out on the chance of undergoing surgery to regain their hearing.



Image source: BBC

The Impact of Hearing



An estimated

20%

of the global population
live with hearing loss

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According to the World
Health Organization
(WHO), more than
1.5 billion people live
with hearing loss, out
of which 430 million
have **disabling hearing
loss**. It is expected that
by 2050, this number
could rise to 700 million.

Hearing holds great importance in every human's life, impacting both their **physiological and psychological health**. The gift of hearing also holds profound **socio-economic advantages**, weaving a tapestry of opportunities that those without hearing yearn for.

Through this project, we strive for an accessible and inclusive world, where every soul can revel in the transformative power of hearing, unlocking the boundless possibilities that lie within.

The Solution

Cochlear implant surgery is a procedure performed on individuals with severe hearing loss. It consists of implanting an electrode array in the inner ear to stimulate the auditory nerve. It helps people hear by bypassing damaged hair cells and improving speech comprehension, particularly for those not aided by traditional hearing aids.

For many patients grappling with profound hearing loss, this surgery represents their only chance of regaining their hearing.

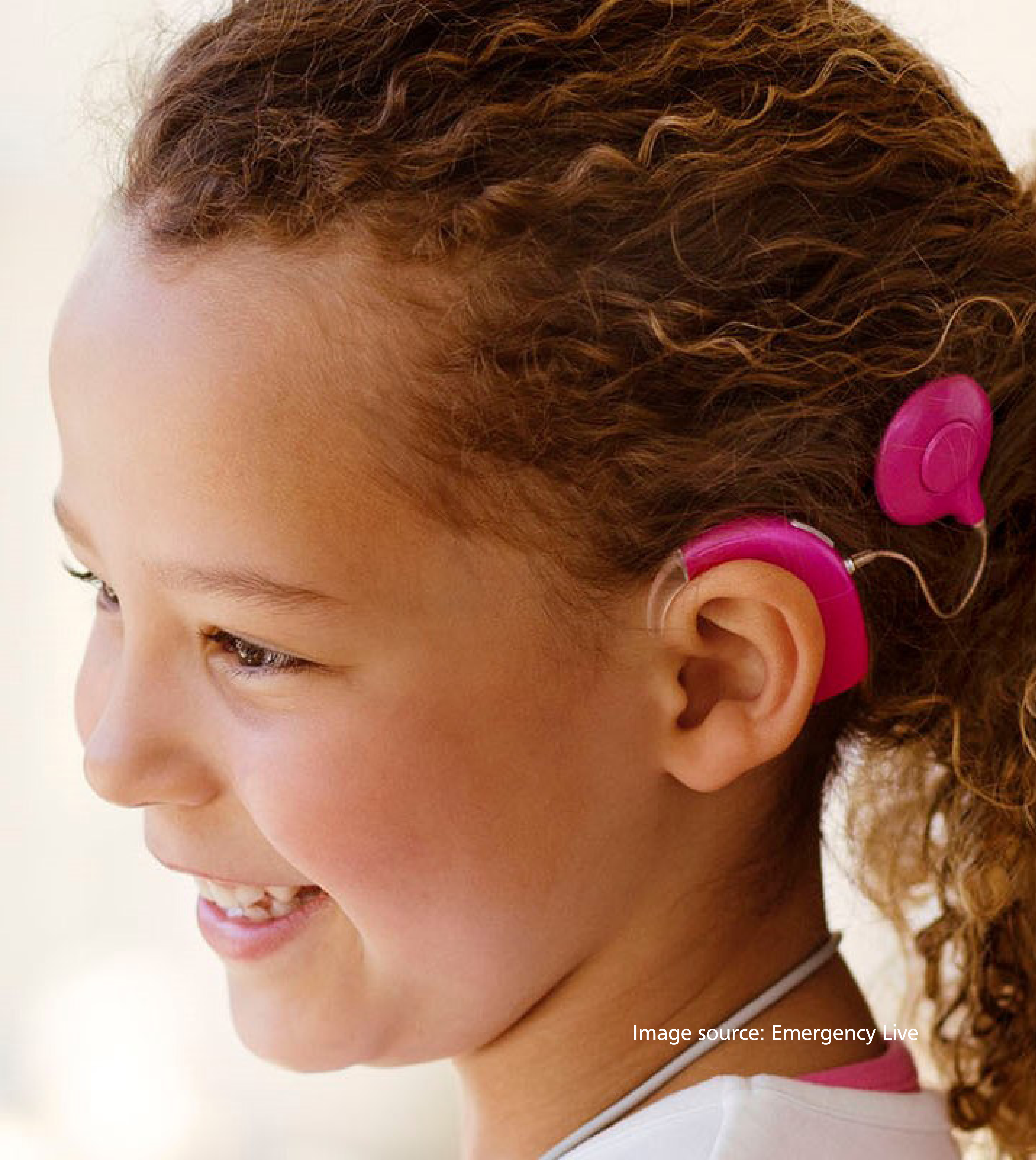


Image source: Emergency Live

Our Contribution



Empowering Lives, One Sound at a Time

Rotary Club of Lebanon International will proudly be leading “The Sound of Hope” project, which is an extension of **District 2452’s Medical and Wellness Group’s** “Hearing Loss in Extreme Ages, A Hidden Disability” initiative. We will be fundraising to offer cochlear implant surgery to two deaf patients. We will also be providing vital rehabilitation support to the two patients following the surgeries, empowering them to fully regain a sense of connection, independence, and confidence.

This project will be executed in collaboration with **Promedz Lebanon**, who are helping us secure the cochlear devices, and **Geitaoui Hospital**, where both surgeries will be performed.

Our Sustainable Impact



Transform two human lives, for the rest of their lives.

The impact of this intervention extends far beyond restoring physical capabilities; it offers a chance for deaf individuals to reintegrate into society, communicate effortlessly, and meaningfully engage with their loved ones. Therefore, this initiative has the potential to **completely transform two human lives, for the rest of their lives.**

A multiplier effect.

By supporting the journey toward recovery of these two patients, Rotary Club of Lebanon International hopes to create a **multiplier effect** and treat more patients with similar needs on a yearly basis.

The Patients

A Silent Childhood

Hearing loss in children shatters their world, robbing them of the enchanting symphony of sounds that surround them. It silences their laughter, stifles their cries of joy, and isolates them from the embrace of language. Their innocent attempts at connection and understanding become a painful struggle, leaving them adrift in a sea of silence.

Amir Darwish, a six-year-old child, suffers from bilateral profound hearing loss. While he was once able to faintly hear with the help of hearing aids, today, he is completely deaf.

At such a young age, he feels indescribable frustration, as communication and self-expression become increasingly difficult by the day. His condition has completely altered his articulation and language development, and only a cochlear implant surgery could alleviate his suffering.



Amir

6 years old

An Invisible Injury

Amidst the wreckage left by the tragic Beirut Blast, yet another heartbreaking consequence emerges: some victims have experienced hearing damage as a result of the blast, which affects their physical well-being as well as their mental health, resulting in depression and anxiety.

Rita Khawly, a 26-year-old woman, has progressive hearing loss. Prior to the Beirut Blast, she could partially hear with the help of hearing aids. However, she completely lost her hearing after the explosion on August 4th.

Rita diligently works at a bakery, which becomes incredibly challenging for her when she can't lipread what customers are asking her. Her only way to regain control and confidence is to undergo the cochlear implant surgery, which is unfortunately unattainable due to financial difficulties.



Rita

26 years old

To Learn More About Our Project

You can discover more about Amir and Rita through the following documentary on YouTube that portrays the personal lives, struggles, and stories of our patients.

[Click here to watch the documentary.](#)

Support Their Journey to a New Life!

Through this initiative, we are paving the way for a future where access to hearing healthcare is not limited by financial constraints, affirming the inherent worth and potential of every individual.

Your contributions can make a **significant difference** in helping people overcome the challenges associated with hearing loss and regain their quality of life.

You can actively contribute to transforming our patients' lives by contacting our club Treasurer to make a donation.

Contact name: Rtn. Myrna Panayot

Phone: +961 3 252 769

E-mail: donate@rcli2452.org

7 Effective Ways to Increase Your Vitamin D Levels

You may be able to get more vitamin D by increasing your time in the sunlight, taking a supplement, and eating certain foods, including mushrooms.

Vitamin D is an essential nutrient that your body needs for many vital processes, including building and maintaining strong bones.

Low vitamin D intake is considered a major public health concern across the globe. In fact, vitamin D deficiency is estimated to affect 13% of the world's population.

What is vitamin D?

Vitamin D is a fat-soluble vitamin that primarily aids calcium absorption, promoting growth and mineralization of your bones. It's also involved in various functions of your immune, digestive, circulatory, and nervous system.

Emerging research suggests that vitamin D may help prevent a variety of illnesses, such as depression, diabetes, cancer, and heart disease. However, vitamin D's relationship to these conditions is still poorly understood.

How much do you need?

There is significant debate within the scientific community about how much vitamin D your body needs.

While the U.S. National Academy of Medicine considers 600–800 IU of daily vitamin D to be sufficient for the majority of the population, the U.S. Endocrine Society recommends 1,500–2,000 IU per day.

The Reference Daily Intake (RDI) is currently set at 600–800 IU of vitamin D for adults, based on the U.S. National Academy of Medicine's recommendations.

The optimal blood level of vitamin D is not concretely established but likely falls between 20 and 50 ng/ml.

The U.S. National Academy of Medicine further suggests that a daily intake up to 4,000 IU of vitamin D per day is safe for most people, although much higher doses may be temporarily necessary in order to raise blood levels in some individuals.

Although toxicity is rare, it is best to avoid long-term vitamin D doses in excess of 4,000 IU without supervision from a qualified healthcare professional.

SUMMARY

Vitamin D is necessary for calcium absorption and bone health. While there is no set guidance, dosage recommendations range from 600–2,000 IU per day — but some people may need heavier doses to reach and maintain healthy blood levels.

1. Spend time in sunlight

Vitamin D is often referred to as “the sunshine vitamin” because the sun is one of the best sources of this nutrient.

Your skin hosts a type of cholesterol that functions as a precursor to vitamin D. When this compound is exposed to UV-B radiation from the sun, it becomes vitamin D.

In fact, sun-derived vitamin D may circulate for twice as long as vitamin D from food or supplements.

However, the amount of vitamin D your body can make depends on several variables.

Skin tone and age

People with darker skin need to spend more time in the sun to produce vitamin D than those with lighter skin. That's because darker skin has more melanin, a compound that can inhibit vitamin D production.

Age can have an impact as well. As you get older, vitamin D production in your skin becomes less efficient.

Geographical location and season

The closer you live to the equator, the more vitamin D you'll be able to produce year-round because of your physical proximity to the sun's rays.

Conversely, your opportunities for adequate sun exposure decreases proportionally the farther away from the equator you live.

Sunscreen and clothing

Certain types of clothing and sunscreen can hinder — if not completely block — vitamin D production.

While it's vital to protect yourself from skin cancer by avoiding overexposure to sunlight, it takes very little unprotected sun exposure for your body to start producing vitamin D.

Although there's no official recommendation, sources suggest that as few as 8–15 minutes of exposure is enough to make plenty of vitamin D for lighter-skinned individuals. Those with darker skin may need more time.

SUMMARY

Your skin can produce large quantities of vitamin D on its own when exposed to the sun's UV-B rays. However, many factors affect this process.

2. Consume fatty fish and seafood

Fatty fish and seafood are among the richest natural food sources of vitamin D.

In fact, a 3.5-ounce (100-gram) serving of canned salmon can provide up to 386 IU of vitamin D — about 50% of the RDI.

The exact vitamin D content of sea food may vary depending on the type and species in question. For example, some research suggests that farmed salmon may contain only 25% of the amount of wild-caught salmon.

Other kinds of fish and seafood rich in vitamin D include: Tuna, mackerel, oysters, sardines and anchovies. Many of these foods are also rich in heart-healthy omega-3 fatty acids.

SUMMARY

Fatty fish and seafood are among the foods highest in vitamin D, though exact vitamin content may vary depending on the type and source of the food in question.

3. Eat more mushrooms

Mushrooms are the only vegetarian source of vitamin D.

Like humans, mushrooms can make their own vitamin D upon exposure to UV light. Humans produce a form of vitamin D known as D3 or cholecalciferol, whereas mushrooms produce D2 or ergocalciferol.

Both forms of this vitamin can raise circulating vitamin D levels, though research suggests that D3 may raise levels more effectively and efficiently than D2.

While vitamin D content depends on the type of mushroom, certain varieties — such as wild maitake mushrooms — provide as much as 2,348 IU per 3.5-ounce (100-gram) serving. That's almost 300% of the RDI.

Due to their exposure to sunlight, wild mushrooms usually have more vitamin D than commercially grown types. However, you can also purchase mushrooms treated with UV light.

However, you should always take care to meticulously identify wild mushrooms or purchase them from a trusted supplier — such as a grocery store or farmers market — to avoid exposure to poisonous varieties.

SUMMARY

Much like humans, mushrooms produce vitamin D when exposed to UV light. Wild mushrooms — or commercially grown ones treated with UV light — have the greatest vitamin D levels.

4. Include egg yolks in your diet

Egg yolks are another source of vitamin D that you can easily add to your routine.

Like many other natural food sources, yolks have variable vitamin D content.

Conventionally raised chickens that don't have access to the outdoors typically only produce eggs harbouring 2–5% of the RDI.

However, some research indicates that eggs from pasture-raised or free-range chickens offer up to 4 times more — or up to 20% of the RDI — depending on how much time the fowl spend outside.

Chicken feed can also affect the vitamin D content of eggs. Those fed vitamin-D-enriched grain may produce yolks that boast well over 100% of the RDI.

SUMMARY

Free-range and pastured eggs are a great source of vitamin D, as chickens with access to sunlight produce more vitamin D in their eggs than those that remain indoors.

5. Eat fortified foods

Because few foods naturally contain high levels of vitamin D, this nutrient is often added to staple goods in a process known as fortification.

Still, you should keep in mind that the availability of vitamin-D-fortified foods varies by country, and the amount added to foods may differ by brand and type.

If you're unsure whether a particular food has been fortified with vitamin D, check its ingredients list.

SUMMARY

Vitamin D is often added to food staples — such as milk and breakfast cereals — to increase intake of this nutrient.

6. Take a supplement

For many people, taking a vitamin D supplement may be the best way to ensure adequate intake.

Vitamin D exists in two main biological forms — D2 (ergocalciferol) and D3 (cholecalciferol). Typically, D2 comes from plants and D3 from animals.

Research suggests that D3 may be significantly more effective at raising and maintaining overall vitamin D levels than D2, so look for a supplement with this form.

Additionally, it's important to purchase high-quality supplements that have been independently tested. Some countries — such as the United States — don't regulate nutritional supplements, which can negatively impact supplement quality.

Dosage

Vitamin D supplements vary in dosage. That said, the amount you need depends on your current vitamin D levels.

For most people, 1,000–4,000 IU is considered a safe daily dose for maintaining healthy levels.

However, you may need a much larger dose in certain circumstances — and especially if your current levels are very low or you have limited exposure to sunshine.

For this reason, it's ideal to have your vitamin D levels tested by your medical professional to ensure you're taking the most appropriate dose.

Vegan supplement options

The majority of vitamin D supplements are derived from animal sources — and thus inappropriate for vegans. However, a few vegan D supplement options exist.

Because vitamin D2 is plant-derived, D2 supplements are typically vegan-friendly and widely available.

Vegan D3 is significantly less common than D2 but can be made from lichens. You're most likely to find them in specialty health stores or online.

SUMMARY

Supplements are often needed if you don't obtain enough vitamin D from food or sunlight. Having your vitamin D levels checked before supplementing is the best way to pick the appropriate dose.

7. Try a UV lamp

Lamps that emit UV-B radiation may also boost your vitamin D levels, though these lamps can be costly.

When your skin is exposed to UV-B radiation from the sun, it's able to produce its own vitamin D. UV lamps mimic the action of the sun and can be especially helpful if your sun exposure is limited due to geography or time indoors.

UV radiation has been used therapeutically for various skin conditions for decades, but only recently has it been marketed as a way to improve vitamin D levels.

Safety is an important concern with these devices, as too much exposure could burn your skin. You're typically recommended to limit your exposure to no more than 15 minutes at a time.

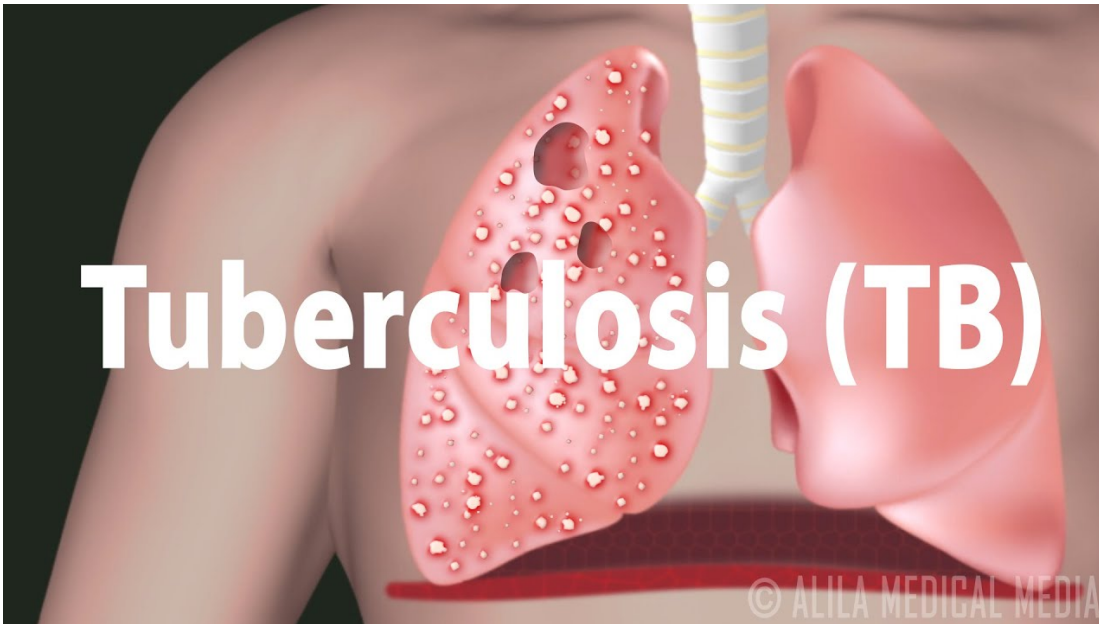
SUMMARY

You can purchase lamps that emit UV-B radiation to stimulate vitamin D production. However, they can be expensive and dangerous if used for more than 15 minutes at a time.

Consuming 400–800 IU (10–20 mcg) of vitamin D should meet the needs of 97%–98% of healthy people. However, several studies show that taking more than this is linked to greater health benefits.



TUBERCULOSIS



Tuberculosis (TB) is caused by bacteria (*Mycobacterium tuberculosis*) that most often affect the lungs. Tuberculosis is curable and preventable.

TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected.

About a quarter of the global population is estimated to have been infected with TB bacteria, but most people will not go on to develop TB disease and some will clear the infection. Those who are infected but not (yet) ill with the disease cannot transmit it.

People infected with TB bacteria have a 5–10% lifetime risk of falling ill with TB. Those with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a higher risk of falling ill.

When a person develops active TB disease, the symptoms (such as cough, fever, night sweats, or weight loss) may be mild for many months. This can lead to delays in seeking care, and results in transmission of the bacteria to others. People with active TB can infect

5–15 other people through close contact over the course of a year. Without proper treatment, 45% of HIV-negative people with TB on average and nearly all HIV-positive people with TB will die.

Key facts

- A total of 1.6 million people died from TB in 2021 (including 187 000 people with HIV). Worldwide, TB is the 13th leading cause of death and the second leading infectious killer after COVID-19 (above HIV/AIDS).
- In 2021, an estimated 10.6 million people fell ill with tuberculosis(TB) worldwide. Six million men, 3.4 million women and 1.2 million children. TB is present in all countries and age groups. But TB is curable and preventable.
- In 2021, 1.2 million children fell ill with TB globally. Child and adolescent TB is often overlooked by health providers and can be difficult to diagnose and treat.
- In 2021, the 30 high TB burden countries accounted for 87% of new TB cases
- Multidrug-resistant TB (MDR-TB) remains a public health crisis and a health security threat. Only about one in three people with drug resistant TB accessed treatment in 2020.
- Globally, TB incidence is falling at about 2% per year and between 2015 and 2020 the cumulative reduction was 11%. This was over half way to the End TB Strategy milestone of 20% reduction between 2015 and 2020.
- An estimated 66 million lives were saved through TB diagnosis and treatment between 2000 and 2020.
- Globally, close to one in two TB-affected households face costs higher than 20% of their household income, according to latest national TB patient cost survey data. The world did not reach the milestone of 0% TB patients and their households facing catastrophic costs as a result of TB disease by 2020.
- By 2022, US\$ 13 billion is needed annually for TB prevention, diagnosis, treatment and care to achieve the global target agreed at the UN high level-meeting on TB in 2018.
- Funding in low- and middle-income countries (LMICs) that account for 98% of reported TB cases falls far short of what is needed. Spending in 2020 amounted to US\$ 5.3 billion less than half (41%) of the global target.
- There was an 8.7% decline in spending between 2019 and 2020 (from US\$ 5.8 billion to US\$ 5.3 billion), with TB funding in 2020 back to the level of 2016. Ending the TB epidemic by 2030 is among the health targets of the United Nations Sustainable Development Goals (SDGs).



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The goal of the Health Education and Wellness Rotary Action Group is to promote good health and wellness through healthy lifestyle choices and disease prevention. The emphasis is on building awareness, promoting education, and providing information to help achieve and maintain good health and to utilize effective prevention in an integrated way. Rotary members are encouraged to promote the action group in their districts and especially in their clubs.

The Health Education and Wellness Rotary Action Group operates in accordance with Rotary International policy but is not an agency of or controlled by Rotary International