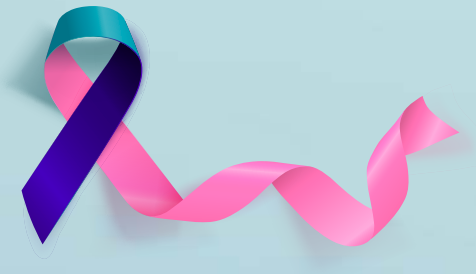
LIVING WITH THYROID DISORDERS

A guide to living and traveling with thyroid disorders

by Uwe Diegel



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ABOUT THIS GUIDE

Everybody needs a vacation, but if you have a thyroid problem, a holiday can be a reminder that it is sometimes difficult to get away from your daily routine. Fortunately, there are ways for you and your thyroid to get along. Making sure you are prepared will help alleviate guesswork and stress and ensure that you relax and enjoy your trip.

Thyroid disorders include hypothyroidism, hyperthyroidism, all kinds of swellings and tumors. Thyroid disorders increase the risk of obesity, heart and vessels disease, anxiety, hair dye, sexual disability and infertility. Patients with thyroid disorders should be aware of appropriate actions for short or long land, air and sea travels in order to prevent side effects of thyroid disorder.

They should prepare a list of needed medications with help of their physician prior the travel including the dose of the medications and how to bring them, traveling schedule and proper diet planning. They should also avoid allergens such as fresheners, and pathogens such as microorganisms.

This guide to traveling with thyroid disorders was developed by Uwe Diegel with a team of specialists and international medical consultants. We try to provide you with information that is factual and current. If you have any comments/suggestions/questions about traveling with thyroid problems, please login to our Facebook page (https://www.facebook.com/lifeinatimeline/ (don't forget to like us)) or visit us on www.lifeina.com.

ABOUT UWE DIEGEL

Uwe Diegel (born 1965 in New Zealand), is a specialist in various forms of medical diagnostics such as blood pressure, temperature, asthma and diabetes. He is the holder of several patents relating to temperature and blood pressure measurement. Until the age of 26 he was a concert pianist. Following an accident that partially restricted movement in in right arm, he started a new career in medical diagnostics.

Serial entrepreneur, he entered the world of medical diagnostics in 1992, quickly developing a particular interest in cardiovascular diagnostics. His intense scientific curiosity has led him not only to develop new technologies in this field, but also to interest himself to field of medical manufacturing, industrial design and problems faced by Chinese manufacturing concerns.

Uwe lives in Paris, France, where he runs HealthWorks Global and does fundamental research in blood pressure diagnostics. He is today considered to be a foremost expert in the field of blood pressure management and in the manufacturing of medical diagnostics devices.

In 2009, Uwe gets interested in connected health as a means of providing better patient management. He becomes involved in iHealth, a platform that takes all the signals of the body and translates them into a meaningful format using smartphones and tablets. Uwe serves as CEO of iHealthLabs Europe until 2016. He leaves iHealth in 2016 to launch Lifeina, a company dedicated to developing new solutions for the safe transport of medication.

Uwe Diegel has been at the forefront of international changes in healthcare technology for the last 30 years. His drive and passion for innovative technology have driven major changes in perception about healthcare. He has driven the manufacturing of medical devices to new horizons by forcing new practices in manufacturing and innovation. An internationally recognised expert in the management of cardiovascular disease and diabetes, he is continuously looking for better solutions to improve outcomes for patients. He has for the last few years spearheaded the dissemination and acceptance of connected health as a tool for providing better solutions for patients.

KEEP CALM AND SLEEP IN

YOU AND YOUR THYROID

PLANING AHEAD

Because of long security lines, flight delays and cancellations, traffic, and big crowds, travel can be stressful under any circumstances. Add a thyroid condition into the mix, and the journey becomes that much more complicated.

Hypothyroidism doesn't have to disrupt your travel plans. You just need to plan ahead.

Travelling with medication and medical devices overseas can be difficult. You may have trouble finding some things you need overseas. You may also have trouble taking what you need with you on your flight or cruise.

Some medication could be illegal in your destination. Locally-bought medication can be poor quality or counterfeit. Some just hard to find, especially if they're not widely accepted in the local culture.

Plan ahead. Get the information you need before you go. When you're informed, you can take steps to reduce the risk of having problems with medication or medical equipment while you're away.

Before you travel, make sure you:

1. see your doctor or travel clinic for medical advice
2. get travel insurance
3. learn about the local laws around medication
4. find out any cultural considerations about your medication or condition
5. pack enough medication to stay in good health on your trip
6. check whether your airline or cruise ship have restrictions on your medical equipment or mobility aids
7. make emergency plans in case things go wrong

Since thyroid disease is a chronic illness, it's best to get your doctor's OK before you plan a trip, especially if you're going to fly. This is particularly important if you've had surgery or other medical procedures of any kind in the last month.

The thyroid gland is an important part of the endocrine system, secreting a number of hormones that affect everything from heart health to metabolism. One of those hormones is thyroxine, also known as T4. Because of the many functions that thyroxine impacts, it is considered one of the most important thyroid hormones. Understanding thyroxine is crucial to protecting your overall health.

WHAT DOES THYROXINE DO?

Thyroxine is a hormone the thyroid gland secretes into the bloodstream. Once in the bloodstream, thyroxine travels to the organs, like the liver and kidneys, where it is converted to its active form of triiodothyronine. Thyroxine plays a crucial role in heart and digestive function, metabolism, brain development, bone health, and muscle control. It affects almost all of the body's systems, which means proper thyroxine levels are vital for health. This is why many doctors will test T4 levels along with the more common T3 levels when testing for thyroid disorders.

WHAT CAN GO WRONG WITH THYROXINE?

Having too little thyroxine or too much thyroxine can cause health problems. If your body releases too much thyroxine, you will suffer a condition called thyrotoxicosis. This can cause a goiter, which is a swelling of the neck because of an enlarged thyroid gland. Thyrotoxicosis can also cause menstrual irregularities, an increase in bowel movements, weight loss, heat intolerance, fatigue, and irritability. Thyrotoxicosis is commonly caused by hyperthyroidism, tumors in the thyroid gland, or thyroid inflammation.

The body can also produce too little thyroxine, a condition known as hypothyroidism. Low thyroxine levels cause problems with development if it occurs when an individual is young. In adults, thyroxine deficiency will lower the metabolic rate, causing weight gain, memory problems, infertility, fatigue, and muscle stiffness.

QUESTIONS TO ASK YOUR DOCTOR

If you are struggling with symptoms of a thyroid disorder and suspect thyroxine deficiency, it's crucial that you talk with an endocrinologist. You will need a series of blood tests to determine whether or not your thyroid hormone levels

are where they should be. As you discuss your thyroid health with your doctor, consider asking these questions:

- Is thyroid function causing my symptoms?
- What could have caused my thyroid to stop functioning properly?
- How can I regain proper levels of thyroxine and other thyroid hormones?
- What type of monitoring will I need while on thyroid medication?
- How long will I need thyroid medication?

If you feel tired and are struggling with your weight, your thyroid may be to blame. Find an endocrinologist near you, and take the next step toward regaining your health.

GET A CHECKUP

About four to six weeks before you leave, check in with your primary care doctor or endocrinologist. Make sure your hypothyroidism is under good control, so you don't have to worry about getting sick while you're on vacation. Ask whether you need any vaccinations if you're going to be traveling to another country. Get written instructions on how to handle any health issues that might arise while you're away.

SCHEDULE YOUR TRIP AROUND YOUR HEALTH

Book flights at times when you tend to feel your best — whether that's in the morning or early afternoon. Avoid peak travel times when airports and train stations are most crowded. Before you leave, identify the hospital and doctors' office closest to your hotel. And while you're away, plan rest breaks throughout your day to avoid getting overtired.

BRING EXTRA THYROID MEDICINE

If you need levothyroxine (Levothroid, Levoxyl, Synthroid) to keep your thyroid hormone levels in a normal range, you have to take it every day. Bring enough to last your whole trip — plus a few extra pills in case you get stuck at your destination because of a flight cancellation or bad weather.

If you are using L-Thyroxine (the liquid version), please note that it is sensitive to heat and that you need adequate transport solutions, such as LifeinaBox (www.lifeina.com) or the MedActiv travel bags (www.medactiv.com).

Pack the medicine in its original container and put it in your carry-on bag. That way, if your luggage is lost, you won't be without your medicine.

Stay on your regular dosing schedule. You might have to adjust to a time difference, but try to take your medicine at the same time of day as you did at home.

CERTIFICAT MEDICAL *MEDICAL CERTIFICATE*

Docteur/*Doctor* _____

Adresse/*Address* _____

Tel _____

Je soussigné, Docteur _____

I, the undersigned, Doctor

Certifie que
(Prénom et Nom) _____

Certify that
(First name and Name) Passport No _____

souffre d'une pathologie chronique nécessitant la prise du traitement suivant administré en injections sous-cutanées :

is affected with a chronic disease and is treated with the following medication, managed by subcutaneous injections:

nom commercial/DCI _____

Ce traitement nécessite qu'il/elle puisse garder dans la cabine de l'avion le produit et les seringues nécessaires aux injections d'une part ; et d'autre part que ce produit puisse être maintenu à une température comprise entre +2° C et +8° C pendant la durée de son voyage.

This treatment requires that he/she be allowed to carry the drug and the needles used for the injections in the cabin of the plane. The drug must be maintained at a temperature between +2° C and +8° C during the period of travel.

Certificat médical établi à :
Medical certificate made in : _____

Date : _____

Signature :

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NB: En aucun cas son traitement ne peut être interrompu.
NB:Treatment must never be stopped.

www.lifeina.com

People assume that having thyroid disease means you're older and overweight, but in reality, thyroid disease strikes at all ages and affects all sizes.

PACK YOUR PRESCRIPTION

Bring a copy of your prescription with you. This is especially important if you're traveling abroad. Some countries require that you show a prescription to bring in medicine. You'll also need a prescription if you lose your medicine and have to refill it at a local pharmacy.

CHECK FOR MEDICATION RESTRICTIONS AT YOUR DESTINATION

Before you leave for an overseas trip, check with your embassy or consulate to make sure the country you're visiting will allow you to bring in the medicines you take. Some countries have restrictions on the types of medicines visitors can bring in.

CARRY YOUR DOCTOR'S CONTACT INFO

Bring your doctor's phone number and email address, just in case you need verification for a foreign pharmacy to refill your prescription. Leave a copy of your doctor's contact information and your insurance plan numbers with a friend or family member. It's also a good idea to bring a letter from your doctor that explains your condition and the medication you take to treat it.

TRAVEL CERTIFICATE

Download a travel certificate and have it filled by your doctor. This certificate says that you have a thyroid problem and you should not be separated from your medicine, and that this medicine should be stored at a temperature between 2-8° C. You can download this certificate for free on the Lifeina website.

LifeinaBox is the world's smallest fridge, ideal for transporting fragile medications such as L-Thyroxine, which has to be maintained at a temperature between 2 and 8°C. The built-in batteries of LifeinaBox will allow you to go anywhere, anytime, with your medication at the right temperature.

INVESTIGATE YOUR HEALTH INSURANCE PLAN

Find out what travel services your health insurance plan includes. For example, if you need to visit a doctor or go to the hospital while you're away, will it cover the cost? If not, you might want to consider buying supplemental travel health insurance. Look into a plan that

GENERAL TRAVEL

includes evacuation insurance, which will pay for your transportation back home if you become seriously ill. You might also want to consider buying trip cancellation insurance, which will reimburse you for the costs of your vacation if you get too sick to travel.

WEAR A MEDICAL ALERT BRACELET

Before you go, sign on with a medical alert company. They'll give you a necklace or bracelet, and a wallet card with your name, health conditions, and a toll-free number that health care professionals at your destination can call to learn more about your medical situation. A medical alert tag could save your life if you're unconscious and unable to explain your condition to doctors and paramedics.

STAY HYDRATED

Drink extra water throughout the day, both while you're on the plane and once you arrive at your destination. Avoid foods and drinks that can dehydrate you, like salty snacks, soda, and coffee. Staying hydrated can prevent constipation, which is already a problem in people with hypothyroidism.

BE COMFORTABLE

When you travel, you'll be on your feet a lot — and you'll sit a lot. Wear loose, comfortable clothing and low-heeled shoes. On the plane, get up once every hour and walk around to stretch your legs. Staying active will help prevent blood clots from forming in your legs.

If you do get a little dried out, bring along an emollient moisturizer to rehydrate your skin. Apply it every morning when you get out of the shower or bath, to hold moisture in your skin.

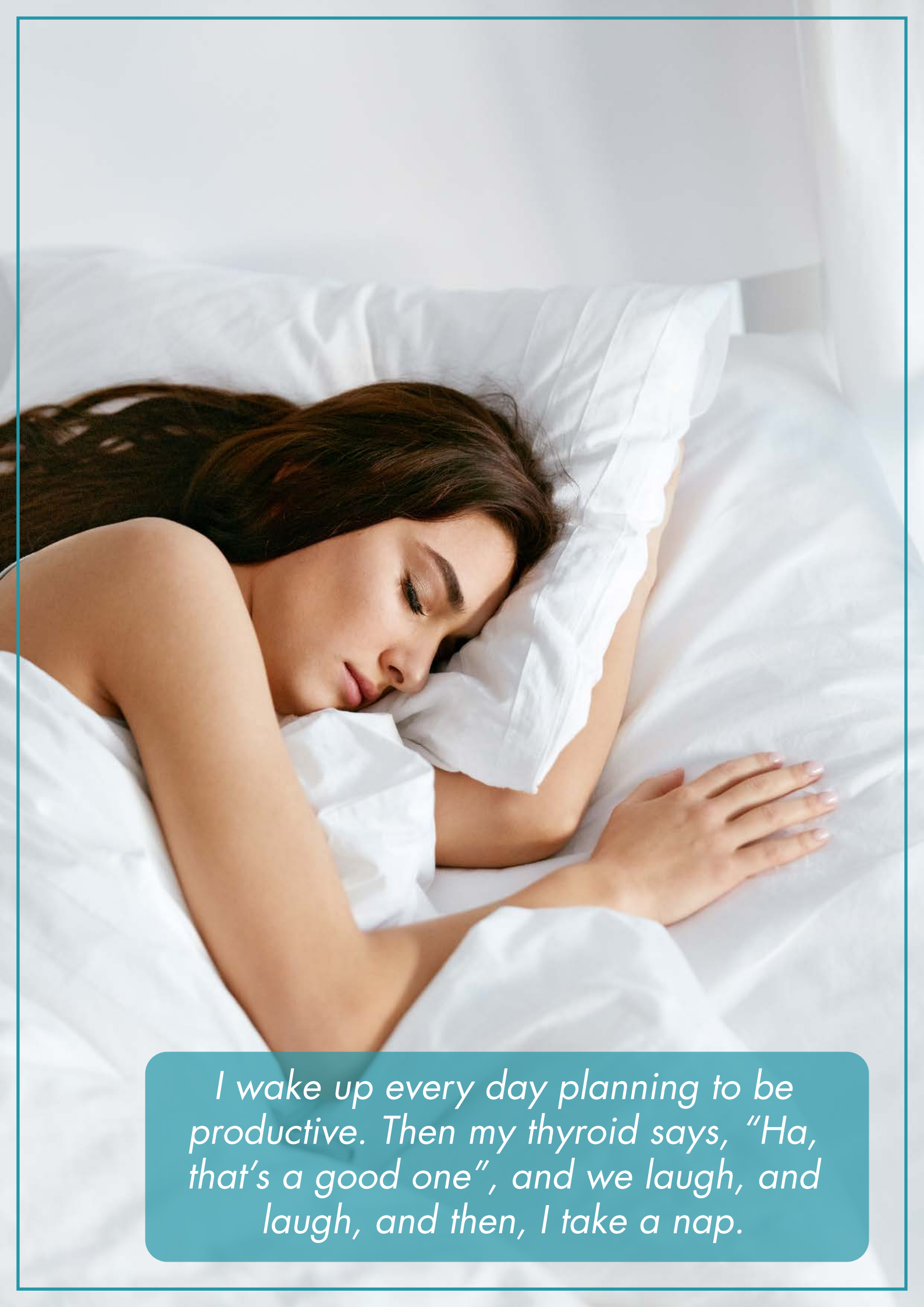
REMEMBER

Although travel planning and prepping with hypothyroidism in mind may take some extra steps, don't let that prevent you from taking a trip. In fact, advance planning may ease any anxieties you have about traveling with your condition.

Whether it's by car, plane, bus, train, or boat, millions of Americans travel for work and play. If you have thyroid disease, it helps to make sure that you're aware of safety precautions and ways that you can plan ahead regarding your condition. Here are some tips for making all of your travel experiences as safe and healthy as possible.

GENERAL TRAVEL

While air travel in particular can pose some unique concerns, there are things that all people with thyroid disease who are planning any kind of trip should do to be as prepared as possible.



I wake up every day planning to be productive. Then my thyroid says, "Ha, that's a good one", and we laugh, and laugh, and then, I take a nap.

BRING ENOUGH MEDICATION

Make sure that you pack extra medication, enough to cover you in case you get delayed or stuck somewhere due to weather, strikes, breakdowns, changed plans, or you drop or lose pills.

HAD RADIOACTIVE IODINE TREATMENT?

Airports, public transit stations, and other ports of entry often have radiation detectors. If you have had radioactive iodine (RAI) treatment, you can set these off for weeks or even months afterward. Be sure you travel with a card or letter from your doctor explaining your situation in case you trigger any alarms.

AVOID SEASICKNESS AND MOTION SICKNESS

If you're going on a cruise ship or boat, you may want to talk to your doctor about having prescription scopolamine patches on hand for seasickness—especially if you have hyperthyroidism, as the condition itself can

STRETCH, STRETCH, STRETCH...

cause nausea and vomiting. Dramamine, Seaband wristbands, and natural supplements with ginger may also be helpful for seasickness or motion sickness.

STRETCH OFTEN

Whatever way you're traveling, if possible, take frequent breaks to stretch, stand up, and walk around. This can help relieve any joint and muscle pain that you have from thyroid disease as well. If you've been sitting for more than 30 minutes, get up slowly as blood may have pooled, which can cause dizziness when you stand up too quickly.

Flex and rotate your neck, back, shoulders, calves, and ankles every 20 to 30 minutes to avoid stiffness. When flying, take a walk around the cabin every hour or two if flight safety permits. All of these tricks can help prevent the risk of developing dangerous blood clots that can form in your legs during long periods of sitting while traveling.

CHECK YOUR INSURANCE

Before you leave on an international trip, check with your health insurance company to make sure they'll cover you when you're out of the country. If not, you may want to look into purchasing travel health insurance to cover any healthcare costs you might incur on your trip.

GET YOUR FLU SHOT

Give your immune system a boost by getting a flu shot before you travel, especially when going to another country where the flu season may be different. Similarly, if you're traveling internationally, make sure you have all the appropriate vaccines. This is particularly important when you have a chronic illness like thyroid disease.

TRY MELATONIN

Sleep is important, especially when you have a chronic illness like thyroid disease. Melatonin can help you adjust to time zone changes and reset your internal clock. If you're traveling east, the general guidelines suggest that you take 3 mg of melatonin at 11 p.m. in your destination's time zone for two nights prior to traveling.

If you arrive in the morning or during the day, do your best not to sleep or nap until bedtime, and again, take the melatonin at 11 p.m. or an hour before heading to bed if you won't be up that late. You may find that you'll wake up fully readjusted to the new time zone and without jet lag symptoms.

AIR TRAVEL

Some of the health risks involved in flying, such as blood clots after long flights, apply to everyone. But as a thyroid patient, you may face some additional challenges concerning your health and medication when traveling by air.

WHERE TO PUT YOUR MEDICATION ON THE PLANE

Generally, the luggage storage areas in planes are pressurized and maintained at a constant temperature of about 5°C. This is a standard for most airlines. It is not a problem for you to put your medicine in the luggage hold. However, if you make an unusual journey (for example through the Russian tundra with a former military aircraft Russian), you should know that the luggage area will probably be non-pressurized and will sometimes be at a sub-zero temperature that could freeze your medication.

KEEP YOUR MEDICATIONS WITH YOU

Place all of your medication(s)—both prescription and over-the-counter—and any medical supplies in your carry-on bag so they're with you. Not only will they be less likely to be lost, but they won't be exposed to moisture or temperature changes that occur in the cargo/storage area and on the tarmac.

Make sure your medications are in their original bottles to avoid security issues. Some countries may also have laws regarding how prescription medications are labeled, so you might want to research this before your trip.

You don't need to put liquid medications in a zip-top bag, but when you go through the security checkpoint, you will need to tell the security officer that you have them so they can be screened separately.

Sometimes you're asked to "gate check" your carry-on right before boarding due to limited overhead space. If this happens, make sure that you take your medications out of the bag before handing it over to a crew member so that you can carry them with you on the plane.

GET COPIES OF YOUR PRESCRIPTIONS

Bring a copy of all your prescriptions and your doctor's contact information with you so that if your medication is lost, stolen, or becomes unusable, you'll be able to get more if you're traveling. You can also take photos of your prescription bottles and save them on your smartphone and/or email PDFs or photos of them to yourself so you can access them anywhere if needed.

For international travel, don't plan on purchasing more medication while you're there, since their medication standards may be different than those in your country. If you need more than a 30-day supply to take with you, talk to your doctor and/or pharmacy about getting a prescription that allows for extra medication for your trip.

TIRED OF BEING TIRED ?

The Spanish famously have siestas. It's a luxury not everyone can afford, but if possible try to sneak into a back room and take a power nap.

MY BED
is calling
-and-
I must go

PROTECT YOUR IMMUNE SYSTEM

FIGURE OUT A MEDICATION SCHEDULE

People with thyroid disease often have a fairly strict schedule for taking medications. If you're going to be crossing multiple time zones, discuss in advance with your doctor how best to time your medications while you're away from home. Ideally, you'll want to try to get on a schedule as close to your usual home schedule as possible.

PROTECT YOUR IMMUNE SYSTEM AND STAY HYDRATED

Having an autoimmune disease like Hashimoto's thyroiditis or Graves' disease can make you more susceptible to picking up infections. For your best defense against sitting in an enclosed space and breathing the same air as your fellow passengers, some of whom may be sick, for a long period of time:

- Make sure you get plenty of sleep in the days leading up to your trip.
- Don't use airline-provided blankets or pillows. Even if they're sealed, they're rarely cleaned and may be germ-laden from previous passengers.
- If the person next to you is coughing, request to be moved, if possible.
- Drink about 8 ounces of fluid a hour; water and fruit juices are your best options, as alcohol and caffeinated beverages can be dehydrating. This can also help you fight fatigue.

Avoid drinking water that comes from the plane itself; this includes airline-provided coffee and tea. The tanks that store the drinkable water on planes are cleaned infrequently, and immune-challenging bacteria have regularly been found in these tanks.

Ask for bottled water, or purchase some in an airport shop prior to boarding.

Bring along disinfectant wipes for your seatbelt, tray table, and armrests. Tray tables, in particular, have been shown to be a prime source of bacteria on airplanes. Use hand sanitizer after touching anything other people have touched like the reading light or vent.

BE CAREFUL ABOUT FLYING WITH INFECTIONS

If you have a cold or an infection—particularly ear, nose, and/or sinus infections—you may need to cancel or change your flight. Congestion can lead to pain, bleeding, and possibly a ruptured eardrum or sinus damage because air can't flow as freely.

Having a thyroid that isn't working is particularly stressful, tiring for the mind, the body and the spirit. Be strong...

If you have an infection and are considering cancelling your trip, get a note from your doctor; many airlines won't charge you for a cancelled flight if you provide this documentation. If you must fly while ill, contact your doctor to ask about what precautions you should take. Some doctors may suggest that you take a decongestant or follow other recommendations before or during a flight.

AVOID DRYNESS

While most homes have humidity levels above 30 percent, the humidity in the cabin of a plane is usually below 20 percent, which can cause or exacerbate dry eyes and skin—symptoms many with thyroid disease already deal with every day. If you wear contact lenses, you might want to wear glasses during the flight or use lubricating eye drops, since reduced cabin humidity can cause eye irritation. If dry skin bothers you, bring along a travel size bottle of lotion and saline spray for your nose if your nasal tissue tends to get dried out.

DRESS WARMLY

If you experience cold intolerance as a result of your thyroid disease, be sure to wear warm clothes when traveling by air, as planes are notoriously chilly. Dressing in layers is a good idea, as you can take clothes on/off if your temperature fluctuates.

TRANSPORTING YOUR MEDICINES

MedActiv and Lifeina have developed a range of solutions to keep your thyroid medicines at the right temperature at all times. These solutions are divided in two major technologies, which are cooler bags and mini fridges.

ICOOL

The iCool bags use a new generation of chemical ice packs that do not sweat and have a longer thawing point than traditional ice packs. The iCool bags can keep medication between 2 and 8°C for up to 36 hours, depending on the model chosen. They also include separate compartments for transporting your accessories. Available under both the MedActiv (iCool) and the Lifeina (LifeinaBag) brands, these bags are the perfect companion for longer trips.

Of singular elegance, the LifeinaBag transport bags are discrete and offer a protection of 24 hours between 2 and 8°C.

LIFEINABOX

LifeinaBox is the world's smallest intelligent fridge for the safe transport of fragile medications.

Connected to an application that monitors the temperature of your medication, and with a built-in 6-hour battery, LifeinaBox is truly the best possible example of Human Centred Design.

LifeinaBox is the smallest smart fridge in the world and is an ideal solution for the secure transport of L-Thyroxine. Connected to an application, it keeps medicines between 2 and 8 ° C and gives you the freedom to travel anywhere, anytime, with your medication at the right temperature.

USEFUL HINTS

For environmental reasons, more and more hotels are using coded cards to open the doors of their rooms and these cards are also often used as a switch to turn on and off the electricity in the room. This means that when you leave your hotel room, you take your card with you and turn off all the electricity in your room (including the little bar fridge where you keep your medications cool). To work around this problem, just use any old plastic card (a gym membership card, business card, etc.) to switch on the power in your room. Leave it permanently in the room so that the electricity stays on.

If you need to freeze the ice packs of your travel bag before leaving the hotel, the refrigerators in the hotel rooms are generally not of a very good quality and will not completely freeze your ice packs. So instead of using the bar fridge in your room, go down to the hotel bar and ask the helpful staff to freeze them for you. After all, they always need ice in bars to make those delicious gin tonics and therefore have high quality freezers.

USEFUL SITES

European Health Insurance Card
Google translate
MedActiv (transport solutions for medication)
Lifeina (the world's smallest fridge for transporting medication)

lifeina

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ABOUT LIFEINA

Lifeina is an innovative startup that aims to be a global leader in the development of transport and storage solutions for sensitive medication. Our products are designed to give users the freedom to travel knowing that their medications are kept at exactly the right temperature.

The Lifeina solutions are specially designed to bring added value to the medications they are made for. Strategically located in Paris, we have the reputation of always anticipating the needs of our customers with an approach that is based on the total satisfaction of the end-user of the medication.

Our team of experts includes physicians, patients and engineers who are dedicated to finding better solutions for the transport and storage of sensitive medication.

EXCEEDING YOUR EXPECTATIONS FOR THE TRANSPORT AND STORAGE OF MEDICATIONS

For Uwe DIEGEL, creator of Lifeina, the company represents a personal investment. *"In 2003, my brother almost died following an incident where his medication was accidentally frozen in a hotel. So I started this company because of reasons that are more of a personal nature than just business. Lifeina is for me the ultimate expression of innovation at the service of healthcare. If the Lifeina products are so popular, it is because they are designed by patients for patients and because we speak directly with users of the medications to really understand their needs. "*

THE LIFEINA MISSION

Lifeina challenges benchmarks in the thermo-sensitive medication sector. We manufacture and market innovative solutions for the storage and distribution of thermo-sensitive medications.

THE LIFEINA VISION

A future where users of medication are not hampered by intrinsic limitations dictated by their health condition. A future where users are allowed the freedom to take responsibility for their health by using the correct tools for health management.

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Live your life

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