

## MEET Philipp Korf

*Meet Philipp Korf, Corporate EHS Specialist for Magna International (Germany) GmbH. Philipp shares with us his story on living with diabetes, and how he manages it at work and at home.*

**Philipp grew up in the village of Waldniel, located near Dusseldorf, Germany with a younger sister and older brother. There is no history of diabetes in the family, and he is the only member of his family that has been diagnosed with type 1 diabetes.**

Philipp and his wife recently welcomed their first child, a baby girl named Flora who was born on May 24, 2017. When he's not busy with his new family, he enjoys playing basketball and hiking the German and Austrian Alps. He has a passion for travelling and recently spent one month in Indonesia and three months in Patagonia. Philipp reports that his busy life makes managing his diabetes more challenging, but he does not want it to change what he does.

Philipp was first diagnosed with type 1 diabetes as a young adult at the age of 21, which is a little older than the average age of onset. Type 1 diabetes is commonly diagnosed at a young age and often referred to as juvenile diabetes, however it can occur at any age. One day while out enjoying a soccer world championship he started to feel ill. Due to the heat that day he thought he was suffering from heat stroke. Paramedics arrived and transported him to the hospital where it was soon discovered he had something quite different and alarming.

*At the hospital his blood glucose level was 50 mmol/L (900mg/dl), almost ten times the normal level. A typical non-diabetic person will have blood sugar in a range of 3.9–5.8 mmol/L (70–105 mg/dl).*

He was immediately admitted and spent a week in the hospital stabilizing his sugars and being educated about his new condition before being released.

*The most common types of diabetes are type 1 (insulin-dependent), type 2 (insulin-resistant), and gestational diabetes (pregnancy-related).*

Philipp suffers from type 1, where the pancreas no longer produces insulin and he requires insulin injections throughout the day. Insulin is a hormone that unlocks the cell's door, and allows glucose to enter the cell to be used as fuel. Type 1 diabetics must balance insulin, food intake, exercise, and stress levels, all of which can alter sugar levels in the blood.

Philipp injects two types of insulin: a rapid-acting form just before meals (3 to 4 times a day), and a slow-acting insulin (2 times a day, once in the morning and once in the evening) to provide an extended insulin effect during the night and day. By using this method, Philipp has more stable levels of glucose in the blood. Philipp also uses a cutting edge technology called continuous glucose monitoring (CGM). This device automatically provides a blood glucose reading every five minutes. This helps him monitor trends and alerts him to sudden low and high blood sugars. The device can transmit readings using near field communications (NFC) technology, and can send signals to a watch, a smart phone or computer.

Philipp knows it is important for a diabetic to know their body and it's reactions. He uses his past experiences to recognize sugar highs and lows, and then reacts accordingly. Watching his diet and playing sports helps him regulate his sugar levels. Since he travels a lot when visiting Magna divisions, he must prepare ahead of time and always remember to bring insulin, needles, a glucose meter along with snacks and sugar tablets. He knows that a certain level of discipline is required to keep blood sugar levels in balance and avoid high peaks and dangerous lows.

Philipp is an optimist at heart, he continues to enjoy doing the same things he did prior to being diagnosed. He realizes life would be easier to not have injections, plan his meals and activity and estimate his glucose needs, but as in so many life situations you just need to adjust.

*So for Philipp, he decided to accept the condition and manage his diabetes rather than letting diabetes control him.*

That is a winning attitude to managing diabetes!

### PHILIPP KORF

Corporate EHS Specialist for  
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## THINGS YOU DIDN'T KNOW ABOUT diabetes



### 1

#### PROBIOTICS CAN HELP with diabetes

Studies are showing that “friendly” gut bacteria can significantly improve insulin levels for diabetics. An actual cure has not been found, but research is inching closer.

Probiotics have long been used to treat a variety of stomach ailments because they stimulate growth of beneficial microorganisms in the digestive tract. They are found in foods such as yogurt and sauerkraut, and can also be taken in supplement form.

Researchers at Cornell University reported in 2015 that they were able to reduce blood glucose levels of diabetic rats by administering the probiotic Lactobacillus. The probiotics apparently encouraged intestinal cells to secrete insulin and regulate blood glucose levels. At the end of the 90 days, researchers found the rats that received the modified probiotic had blood glucose levels up to 30% lower than those that did not receive the probiotic.

The team says they now plan to test higher doses of the engineered probiotic in diabetic rats in order to see whether it can completely reverse the condition.

### 2

#### IT'S NOT all about sugar

Carbohydrate counting is done by people with diabetes who need to match their insulin injections with how much they eat, with one unit of insulin often correlating to 10g of carbs. But what about protein?

One commonly reported theory is that because protein is broken down slowly, this affects how fast insulin regulates carbohydrates and can result in higher blood glucose levels.

This was supported by A.L. Peters and M.B. Davidson, who reported that the addition of protein (but not fat) to a meal increases postprandial (after meal) glucose response. Their findings suggest that diabetic patients injecting insulin before eating their meal may need to increase their dose when protein is added to a dish.

### 3

#### OBESITY IS CLIMBING, and so is diabetes

It is no wonder that obesity rates are steadily climbing alongside with diabetes. Obesity is believed to account for 80–85% of the risk of developing type 2 diabetes, while recent research suggests that obese people are up to 80 times more likely to develop type 2 diabetes than those with a BMI of less than 22.

The global diabetes rate is expected to grow to 552 million by 2030, or 9.9% of the adult population.

Total deaths from diabetes are projected to rise by more than 50% in the next 10 years. Most notably, there are projected to increase by over 80% in upper-middle income countries. If that doesn't scare you into exercise, I don't know what will!

### 4

#### DIABETES CAN CHANGE with the seasons

You may have noticed that your blood sugar levels are higher during the winter, and lower in the summer. Why is this?

Research reviewed variations in HbA1c values of 285,705 veterans with diabetes, and concludes that patients had higher HbA1c results in the winter and lower values in the summer. The findings also showed that regions with colder winter temperatures had increased winter-summer contrasts compared to areas with warmer temperatures.

These seasonal changes may be due to increased dilation of peripheral blood vessels during warm weather. As a result, the delivery of glucose and insulin to peripheral tissues is increased.

### 5

#### YOUR BLOOD TYPE COULD help prevent diabetes

According to a team of French researchers, women with blood type B positive appear to face a 35% greater risk for developing type 2 diabetes than women with blood type O negative.

This study reports relative to women with O negative blood, diabetes risk was 17% greater among A positive women, 22% higher among A negative women, 26% greater among AB positive women, and 35% higher among B positive women.

However, that being said, there are no indications that there is a direct relationship between the two. Lifestyle and behaviour changes are the greatest indicator for risk.

#### QUIZ:









### Do you know how much sugar is in these popular products?

#### INSTRUCTIONS:

Match the products to the amount of sugar that is found in them. Correct answers can be found on page 4.

**FYI:** 1 sugar cube is equal to 4 grams of sugar and 1 teaspoon is equal to 4 grams of sugar

**CHO** = total carbohydrate amount (just as important to consider as sugar)

	<b>3g</b> (31g CHO)
<b>MARS BAR</b> (53g bar)	
	<b>42g</b> (42g CHO)
<b>WHITE BREAD</b> (2 slices)	
	<b>12g</b> (12g CHO)
<b>ORANGE JUICE</b> (250mL)	
	<b>19g</b> (34g CHO)
<b>MILK</b> (250mL)	
	<b>31g</b> (38g CHO)
<b>KETCHUP</b> (100g)	
	<b>24g</b> (29g CHO)
<b>COKE</b> (355mL can)	
	<b>23g</b> (27g CHO)
<b>COOKIE</b> (chocolate chip)	
	<b>22g</b> (25g CHO)
<b>YOGURT</b> (strawberry Danone, 6 ounce)	

newsmax.com/FastFeatures/probiotics-diabetes-cure-research/2016/06/15/id/734082/, medicalnewstoday.com/articles/288813.php, ncbi.nlm.nih.gov/pubmed/8379513, diabetes.co.uk/blog/2015/03/five-things-you-probably-dont-know-about-diabetes/, who.int/features/factfiles/diabetes/01\_en.html, diabetes.co.uk/diabetes-and-obesity.html, ncbi.nlm.nih.gov/pubmed/15746473?ordinalpos=43&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\_ResultsPanel.Pubmed\_DefaultReportPanel.Pubmed\_RVDocSum, diabetes.co.uk/blog/2015/03/five-things-you-probably-dont-know-about-diabetes/, webmd.com/diabetes/news/20141218/some-blood-types-might-raise-type-2-diabetes-risk-study

# ARE YOU AT RISK for diabetes?

**Diabetes is a chronic disease in which the body either cannot produce or use the hormone insulin.**

Insulin is required by the body to use sugar (glucose) as energy. When insulin is not produced, the result is uncontrolled blood sugar. This can result in a number of short term symptoms, but more importantly, when uncontrolled over a long period of time, can lead to irreversible damage in the body.

## TYPES OF DIABETES

There are two main types of diabetes: type 1 and type 2.

### TYPE 1

Also known as insulin-dependent diabetes, type 1 diabetes occurs when the body cannot produce insulin.

Approximately

**5–10%**

of people with diabetes have type 1 diabetes.



### TYPE 2

Also known as non-insulin-dependent diabetes, type 2 diabetes occurs when the body cannot properly respond to insulin.

This type of diabetes comprises the majority of diabetic cases,

**approximately 90%**, and can often be managed through nutrition and physical activity.

## PREVALENCE

According to the World Health Organization, in 2014, 422 million people were affected by diabetes worldwide. This number has almost quadrupled since 1980, and is estimated to continue rising.

**This means that 1 in every 11 people are living with diabetes.**



## RISK FACTORS

There are a number of risk factors that are known to increase one's risk of developing diabetes. These include both controllable and uncontrollable risk factors. It is recommended that anybody over the age of 40 should be tested for diabetes every 3 years. If you have one of more of the following risk factors, testing should be done more frequently, and it is best to consult your doctor.

### UNCONTROLLABLE

- 40 years of age or older
- Close relative (mother, father, sibling) with diabetes
- African, South Asian, Aboriginal, Asian or Hispanic ethnic background
- Given birth to a baby weighing more than 9lbs
- History of gestational diabetes

### CONTROLLABLE

- Overweight or obese
- High blood pressure
- High cholesterol
- Diagnosed with prediabetes

## WHY IS DIABETES IMPORTANT TO CONTROL?

When blood sugar levels are uncontrolled for a long period of time, long-term damage and complications begin to affect the entire body.

### COMPLICATIONS CAN INCLUDE:

Kidney disease, eye disease, nerve damage, foot problems, lower limb amputations, cardiovascular disease and erectile dysfunction.

Properly managing blood sugar levels and addressing the controllable risk factors can not only reduce one's risk of diabetes complications, but can also reduce the chances of developing diabetes altogether.

**Accordingly to the World Health Organization, 1.5 million deaths are directly attributed to diabetes each year.**

NOT GETTING ENOUGH



You could have greater concerns than just daytime fatigue, crankiness and an elevated stress response.

**SLEEP DEPRIVATION INCREASES YOUR RISK OF DEVELOPING HEALTH ISSUES SUCH AS OBESITY AND TYPE 2 DIABETES.**

Studies have shown not getting adequate sleep (7–9 hours) can be linked to decreased insulin sensitivity, meaning your body will have difficulty removing sugar from your blood and into your cells for energy.

HERE ARE SOME TIPS TO IMPROVE YOUR SLEEP:



**ESTABLISH REGULAR SLEEPING HOURS.**

Go to bed and wake up at the same time every day, even on weekends, to help you maintain a regular sleep-wake cycle.



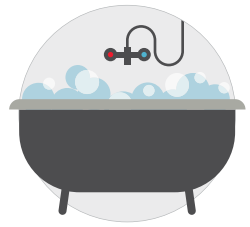
**AVOID STIMULATING ACTIVITIES NEAR BEDTIME.**

Reduce bright lighting in your house once the sun goes down. Turn off or avoid electronics one hour before you plan on sleeping.



**EXERCISE REGULARLY.**

Aim for 150 minutes of exercise a week. For some, exercising at night might make sleeping more challenging. It is best to exercise in the morning or at least three hours before you plan on going to bed.



**DEVELOP A CALMING BEDTIME ROUTINE.**

Try routines that help you recap the day or slowly calms you down. Try reading, listening to soothing music, or journal positive thoughts. Have a warm bath or shower. Engage in light yoga, deep breathing or meditation.



**TRY ASMR (Autonomous Sensory Meridian Response) TO HELP YOU RELAX AND SLEEP.**

ASMR causes tingling and relaxation that can come over someone when he or she hears certain sounds. Sounds such as voices whispering, tapping, scratching or rain are commonly found to elicit this response. You can listen to recordings online as there are many one hour long recordings to help you fall asleep.



**CREATE A SLEEP CONDUCTIVE ENVIRONMENT.**

Reduce the temperature in your bedroom (ideal sleep temperature is 18.5 °C). Eliminate light sources by using an eye mask or unplugging glowing electronics. Only use your bed for sleeping—avoid reading, eating or doing your work while in bed.



**BREAKFAST**

**PEPPER RING eggs**

**INGREDIENTS**

- 1 LARGE sweet pepper, red green or yellow
- 1 TSP canola oil
- 4 eggs
- ¼ TSP each salt and pepper
- 4 SLICES whole-grain bread
- 4 TSP butter, softened
- ¼ CUP salsa

**DIRECTIONS**

1. Cut top and bottom off pepper; set aside. Cut the pepper into four ½-inch rings (keep excess pepper for another use).
2. Heat oil in large skillet over medium-high heat. Add pepper rings and crack an egg in center of each ring. Season with salt and pepper. Cook, covered, for 5 to 7 minutes or until top of yolks is set.
3. While egg is cooking, toast bread until golden and spread with butter. Cut each slice into 5 fingers. Serve eggs with toast and salsa.

**NUTRITIONAL FACTS** per serving (1 egg & 1 slice of bread)

127 calories	15g carbohydrates
5g fat	1.5g sugars
187mg cholesterol	3g fiber
75mg sodium	5.5g protein

[diabetes.ca/diabetes-and-you/recipes/veggie-sunrise-peppers](https://diabetes.ca/diabetes-and-you/recipes/veggie-sunrise-peppers)



**DINNER**

**SLOW COOKER CHICKEN FAJITA burritos**

**INGREDIENTS**

- 1 LB skinless, boneless, chicken strips
- 1 green pepper, sliced
- 1 red pepper, sliced
- 1 MEDIUM onion, sliced
- 1 TBSP chili powder
- 1 TSP cumin
- 1 TSP garlic powder
- ½ CUP salsa
- ¼ CUP water
- 1 CAN black beans, rinsed and drained
- 8 LARGE whole grain tortillas
- 1 CUP shredded cheddar cheese
- 2 CUPS spinach, rinsed

**DIRECTIONS**

1. Place chicken strips in a slow cooker. Top with the remaining ingredients, except the tortillas, cheese, and spinach.
2. Cover and cook on low for 6 hours. When done, shred chicken with a fork.
3. Serve ½ cup of chicken mixture on each tortilla, and top with 2 tablespoons of cheese and a handful of spinach. Fold into a burrito and enjoy!

**NUTRITIONAL FACTS**

250 calories	7g fat	2.3g saturated fat	40mg cholesterol	565mg sodium
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per 1 burrito

31g carbohydrates	4g sugars	16g fiber	28g protein	430mg potassium
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[diabetes.org/mfa-recipes/recipes/2013-08-slow-cooker-chicken-fajita.html](https://diabetes.org/mfa-recipes/recipes/2013-08-slow-cooker-chicken-fajita.html)

**5 TIPS** to battle night-time SUGAR CRAVINGS

Almost everyone experiences night time sugar cravings.

The body's internal clock, known as the "circadian system," regulates different hormones to increase hunger and cravings for sweet, salty, and starchy food late in the evening. While this reflex to consume food at night may have helped our ancestors survive when there was a lack of food, in our current environment of highly caloric, processed foods, late night eating can result in weight gain, contributing to the development of chronic disease such as obesity, pre-diabetes and insulin resistance.



**1 AVOID processed foods**

Sugary and highly processed foods can be as addictive as drugs such as heroin and cocaine! Eating lots of sugar can stimulate a region of the brain that produces spikes in dopamine, the pleasure hormone. Once dopamine levels drop again, we may start to feel like we are "down" and low on energy, and begin to crave that feel-good sensation from sugar once more in a vicious cycle.



**2 EAT PLENTY OF greens and vegetables**

Eating processed sugar drains minerals from the body and can cause more cravings. Rich in vitamins, minerals, and loaded with nutrition, vegetables such as broccoli, peas, and sweet potato can help boost your energy and reduce sugar cravings.



**3 DRINK WATER to stay hydrated**

Sometimes the body feels like it is craving sugary and salty food, when in fact, the body is dehydrated and really needs water. It is recommended to drink an average of 2-3 litres or 6-8 cups of water per day for optimal hydration.



**4 EAT SMALLER frequent meals**

Eating smaller portions of healthy meals throughout the day can help stabilize blood sugar levels and reduce cravings. Instead of three large portions of food, spacing out meals to about every 3 hours (8:00am, 11:00am, 2:00pm, etc.) will help reduce large spikes and dips in blood sugar.



**5 SIMPLY "cleanse" the kitchen**

If the problem is consistent and you are struggling with indulging in snacks and sweets before bed, then it may be sensible to simply clear these temptations out of the home.

ANSWERS SUGAR QUIZ

MARS BAR (53g bar)	31g
WHITE BREAD (81g)	3g
ORANGE JUICE (250mL)	23g
MILK (250mL)	12g
KETCHUP (12g)	22g
(100g)	
COKE (355mL can)	42g
COOKIE (25g)	19g
(chocolate chip)	
YOGURT (29g)	24g
(strawberry)	
Danone (6 ounce)	
CHO = total carbohydrate amount	

FOR MORE articles, employee stories, quizzes, and recipes, please visit [magnawellness.ca](https://magnawellness.ca)

**WE WOULD LOVE TO HEAR FROM YOU!**

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