

How to talk to men about their preconception health

# We've teamed up with Dr. Rory Gibbons to create a guide intended for you to talk about men's role in the preconception period and the dad years to come.

Dr. Rory Gibbons is a naturopathic doctor and father of two boys based in Vancouver, BC. He almost exclusively sees men in his practice who are fathers or wanting to be fathers. He understands the pressure that some men feel in their fertility journey, and recognizes that a lot of men just don't understand how important their role in conception really is.



### Introduction

- As women take on much more of the physical responsibility of pregnancy, it can be hard for men to wrap their heads around the importance of their health in the preconception phase.
- The tremendous amount of attention (and pressure!) put on women, through media and marketing, further perpetuates the imbalanced perception that women's health is all that matters when trying to conceive.
- This guide is intended to help inform and empower you to talk about men's role in the fertility equation in an approachable and accessible way.
- We recognize that not all families involve a male and female partner. We hope that this guide can serve you, whether you have a male partner, or are selecting a sperm donor. We recognize that not all of these factors are knowable in the case of a sperm donor, but knowing what matters to sperm health can help as you evaluate profiles of potential donors. Men's role in preconception health matters, and we are here to support you and your family in this journey.

# Why men's health matters

- Fertility research shows that male factors account for one out of every two to three infertility and pregnancy loss cases. That means that men can have a significant influence on your ability to conceive and carry a healthy pregnancy as a couple.
- While fertility optimization for the female partner can be a bit complicated (with the inclusion of egg number/quality and hormone levels), for the male partner, fertility is a simple numbers game. The higher the number of properly functioning sperm, the higher the likelihood of conceiving and carrying a healthy baby.
- Sperm count and quality parameters are on the decline due to changeable lifestyle and dietary habits (like stress, inflammatory diets, and alcohol use, among other factors). Amongst other bodily effects, sperm quality and count are the downstream variables that we can improve by taking a holistic look at men's health. Chronic stress in our lives is driving us to disease like obesity, diabetes, vascular disease, and low testosterone which are strongly associated with infertility. Testosterone levels are declining as a result of sedentary lifestyles and body mass and we know for sure that testosterone is a main player in sperm number production. Getting testosterone tested is a great idea!

## What conception preparation may look like:

- Food: A subtle shift in diet that includes more variety in daily food intake. Include more color in your daily plates in the form of antioxidant-rich raw and cooked fruits and vegetables, and prioritize pastured eggs and poultry, grass-fed beef, and wild caught fish. Skip the processed foods, refined carbs, excess sugar, and poor quality oils (like canola and other vegetable and seed oils).
- Substance use: Cutting down or abstaining from lifestyle factors that have been associated with decreased sperm quality and count such as alcohol intake, marijuana use, and smoking.
- Exercise: Start moving more if your lifestyle is relatively sedentary.
- Supplementation: Supplementation of individual nutrients such as Omega-3 fatty acids (EPA+DHA), targeted Pre/Probiotics, CoQ10, and Carnitine has shown to be beneficial for male fertility.
- **Lifestyle:** evaluate your exposure to toxins, endocrine disruptors, etc.



# A crash course to guide your conversation:

Communicate to your partner the key attributes of sperm, how problems with each can impair fertility, and how to support the health of each. Knowing about the aspects that define the health of sperm is a very important factor in pre-conception knowledge and empowerment:



#### Sperm count

When it comes to the number of sperm, the more the merrier! This being said, having a routine physical exam, blood work that includes testosterone and blood sugar markers test may be helpful to identify potential low sperm numbers.



#### Sperm morphology

Shape and size do matter when it comes to sperm. Depending on the shape and/or size, investigation further into genetic and environmental factors may occur.



#### Sperm motility

How well the sperm moves is important because those little guys need to reach the egg. Factors like smoking, alcohol, wifi exposure and frequent hot tub/sauna use may play a role in lowering sperm motility.

It's important to note that the only way to know where a man stands on these three factors is to do a sperm analysis.

## Foods that contain these nutrients:



#### 1. Strawberries

Strawberries are packed with Vitamin C, just one cup has almost 100mg. Research has shown that Vitamin C can improve sperm motility, morphology, and count. Note that studies generally test higher doses, at 2,000mg per day. Since this can be tough to achieve through food, a Vitamin C supplement may be helpful.



#### 2. Fatty fish

Fatty fish are good for sperm health thanks to their Omega-3 fatty acids. Some of the best options include wild-caught salmon and sardines. If fish isn't a favorite, walnuts are another good source (although with lower amounts of Omega-3s). An Omega-3 supplement can be another wise choice to support optimal Omega-3 intake.



#### 3. Oysters

Oysters are extremely high in Zinc, a nutrient that research has shown to be critical to healthy sperm production and motility. Zinc reduces oxidative stress by participating in the synthesis of antioxidant enzymes. It's important to note that Zinc is not stored in the body, so it must be consumed regularly to continue to reap its benefits. Oysters are by far the best source of Zinc, but no need to consume them daily. A 3oz. serving has over 74mg - over 600% of your daily value.



#### 4. Pumpkin seeds

If oysters aren't your thing, pumpkin seeds are another great source of Zinc. Just ¼ cup has about 8ma of Zinc. The daily requirement for men is set at 11mg, but higher amounts, up to 30-40mg daily has been shown to be safe and effective. Eat them on their own, throw them on a salad or bowl, or mix them into trail mix or granola. Choose raw, organic pumpkin seeds for optimal nutritional value (we like Go Raw brand). Consumption of animal protein or a high quality supplement with a well-absorbed form like Zinc Bisglycinate can help you get to optimal levels.



#### 5. Dark chocolate

Dark chocolate is a rich source of the amino acid L-arginine, which has been shown to support sperm health. Dark chocolate's primary ingredient, cacao, is also a rich source of antioxidants. When choosing your chocolate, darker is better, as it has more benefits and less sugar. These varieties are identified by a percentage - 85% is a great option. Note that cacao processing is known to result in heavy metals (most often cadmium and lead) in the final product, so be sure to purchase high quality chocolate from a trusted source



# 6. Leafy green and cruciferous vegetables

Leafy greens and cruciferous veggies like spinach, kale, broccoli, and brussels sprouts, are full of Folate which can help produce strong, healthy sperm. In fact, a 2014 study showed that men who supplemented with Folate in addition to certain antioxidants had a lower frequency of chromosomal defects. Note, we always recommend Folate instead of Folic Acid for men and women.





#### 7. Pomegranates

Pomegranates are rich in antioxidants and research has suggested that pomegranate can cause surges in testosterone, improve sperm quality and increase sex drive and mood in both sexes.

Note that most studies have been performed in rats and mice, but clinical studies on humans are in process. Pomegranates are one fruit in which many of its benefits extend to the juice as well.



#### 8. Brazil nuts

Brazil nuts are an excellent source of Selenium which can help boost sperm motility. Getting Selenium through diet or supplementation is important, as it is an essential mineral and cannot be synthesized by the body. You don't need much, each nut has 70-90mcg, so just 1-2 each day can provide a benefit.



#### 9. Tomatoes

Tomatoes are one of the best food sources of the antioxidant lycopene. Lycopene has been linked to male fertility and it has been found to significantly improve motility. Lycopene is more available in cooked tomatoes and it is a fatsoluble antioxidant, so opt for tomato puree or sauce for added benefit, and add some olive oil to help absorption.



#### 10. Grass-fed beef

Beef is a great source of a variety of nutrients needed for healthy sperm production, including Vitamins B6, B12, E, and Zinc. Choose grass-fed beef, which is higher in several nutrients, including Omega-3 fatty acids and Conjugated Linoleic Acid (CLA). It is also generally an indicator of an animal that is more humanely raised, with proper care and without the use of antibiotics and hormones.



#### 11. (BONUS!) Water

It sounds simple, but semen is water based, so ensuring adequate hydration can help increase ejaculate and improve sperm production. Just be sure to stick with plain still or sparkling water, not drinks with added sugar or caffeine.

# Lifestyle factors that impair these three characteristics

#### Caffeine: Alcohol: Obesity:

Research on caffeine is mixed on the amount and source of caffeine (coffee vs. soda drinks) and its potential to affect sperm levels. If optimizing your chance of conception, it would be in your best interest to start dialing back the caffeine intake and maybe turning focus to what the need for caffeine is and addressing that.

Alcohol is a broad spectrum toxin that affects reproductive hormones which in turn negatively impacts sperm count, morphology and motility especially when this habit is combined with smoking. Alcohol and cigarette smoking both have shown to contribute to higher levels of free radicals which is known to contribute to chronic diseases like diabetes, heart disease and cancers.

Men with high body mass index have shown to have greater risk of infertility possibly due to coexisting conditions like diabetes however when a healthy body weight is achieved, sperm quality can improve in addition to reducing your chance of cardiovascular events (heart attack and stroke), improving your energy, confidence and overall quality of life.

#### Recreational drugs:

Substances like marijuana and cocaine have a negative effect on sperm health, in addition to impacting quality of life, relationships and mood. If recreational drugs are a concern, management needs to be addressed with a professional who is well versed in addiction management.

#### **Environmental toxins**

like heavy metals and polychlorinated biphenyls (PCB's) have also shown negative effects on sperm parameters. The Environmental Working Group is a great resource for cleaning up toxins in your environment, and we have a three-part series on preconception detox on our blog.

## Overcoming objections

It's common for men to push back a bit when hearing about how they can make changes to their diet and/or lifestyle, and to take a supplement. Their objection, to not go too deep, is usually due to societal pressures to be "superior" and stoic and when they hear that they may be the issue, men can automatically become defensive. I hear these objections myself occasionally as a practitioner. Here's how you might respond to some common questions:

# I eat pretty well, why do I need to supplement at all?

"There is significant research showing that most men don't consume enough of the nutrients they need for optimal sperm health through diet alone, and that supplementing with certain nutrients can boost our chances of conceiving a healthy baby"

# Shouldn't we just try and see what happens first before I do all of this?

"This is an option and we can continue to try, but we aren't just making these changes to get pregnant. We are investing in our health so we can make a baby, raise the baby, and have the best experience possible in growing with our child"

# It seems expensive, I'm not sure it's worth it.

"I appreciate that you have a good grasp on our financial situation, but once we conceive and enjoy life with our little child the money invested will be a very small price to pay. This is a once-in-a-lifetime chance to invest in the health of our child."

# How do we know if it'll even do anything?

"It can't hurt to optimize your health, whether we conceive our baby now or in a year from now."

#### Extra benefits

In addition to enhancing sperm health and fertility, there are a number of other benefits that can result from supplementation that might entice your partner to stick with his supplement routine. These include the following:



#### Hair coverage:

when hormones shift in a positive direction, the testosterone that is responsible for hair loss, decreases! So you may not start growing all of your hair back per se, but it can certainly slow the hair loss.

#### Libido:

Libido is absolutely correlated with lifestyle markers such as physical activity, psychological stress, and diet. Having a strong libido is fun for you (and the other party involved) and is a helpful component in making a baby.

#### **Energy:**

Seriously, who doesn't want more energy? Once baby comes you may be tapping into your energy reserves a bit more than usual so getting them under control now is a great idea.

#### Sleep:

A sound night's sleep basically improves every marker of wellness including body composition, immune function, energy, mood, libido, and confidence.

## Take baby steps-or big steps-as you are ready

Before seeing a reproductive endocrinologist or an experienced fertility expert, you and your partner can start making changes now! People respond to change in different ways, so tailor your approach to your partner. If a massive overhaul would overwhelm him and have him shut down, start small with baby steps, picking the most approachable change to tackle first.

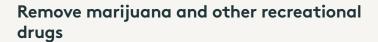
#### Physical activity

Focus on daily movement that includes strength training. If you are struggling on where to start, it is free to get your shoes on and go outside for a walk. Set your smart watch or download an app to track your daily steps. Set a goal of 5,000-10,000 steps per day and when you meet it consistently, set another.

If it's in the budget, working with a personal trainer or strength coach would be ideal. If not, there are plenty of free online resources to help guide your strength training (e.g., Men's Health Big Book of exercises, Dontchangemuch.ca)

#### Manage stress

Stress is inevitable, so find out the best way to manage yours. Maybe it's movement, meditation, or another mindfulness practice like breathing exercises. There are several apps like Headspace and Calm that can help guide these journeys for you.



It's time to address these. Stopping cold turkey can be hard so visit these places to find someone who can help:

- American Addiction Center
- Canadian Addiction Center

#### Reduce alcohol

Some easy ways to start decreasing alcohol include:

- Space drinks out with water
- Enjoy alcoholic drinks on the weekends but don't increase the number of drinks that you would normally have!
- Experiment with non-alcoholic spirits and beverages to help address any habitual or social drinking. Try kombucha and jun for an added boost to the gut.



# Nourish your body with whole foods and limit refined foods

Instead of eliminating "all the bad food that you love" try adding in fruits and vegetables first.

#### Make water your drink of choice.

It's time to start hydrating. If you have trouble with the taste of water add a little lemon juice or make it sparkling with a carbonation machine.

Unfortunately juice, soda, alcoholic and caffeinated drinks do not count towards your daily water intake of around 2L per day. Protein shakes with water count as well as canned sparkling (zero sugar) drinks.



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