

## IVF Diet and Lifestyle Optimize Your Fertility

Please carefully study the following information about IVF diet and reproductive health. It represents a centerpiece of your participation toward successful treatment at Bay IVF.



There is mounting scientific evidence that an outcome of In Vitro Fertilization and related reproductive treatments is determined **before** the treatment starts.

Your lifestyle, the type of your IVF diet, the level of stress in your life, your physical activity, and exposure to egg/sperm damaging factors play a **decisive** role in your probability of success. This is particularly the case with advancing age (35 and older).

Advanced reproductive treatments require your **active** participation (both partners) in the process, starting as much

in advance of the beginning of your treatment as possible.

The outcome of reproductive treatments depends almost solely on the health of your eggs and sperm that exists before the treatment begins. Reproductive treatment cannot improve the egg and sperm quality, but your close adherence to the following reproductive health requirements can result in an improved capacity of your eggs and sperm to result in a healthy baby.

It is essential that you start implementing these requirements as fully and **as soon as possible**, as it may take several weeks to improve your reproductive health.

Reproductive health factors fall into two general categories:

#### Nutrition-related factors (Part I)

- 1. Acid-alkaline balance
- 2. Pesticides
- 3. Omega-3 essential fatty acids
- 4. Glycemic load
- 5. Reproductive hormones imbalance
- 6. Nutritional deficiencies
- 7. Impact of CoQ10 on eggs and sperm
- 8. Alcohol
- 9. Caffeine
- 10. Advanced glycation end-products
- 11. Hydration
- 12. Reproductive health-promoting diet

#### Non-nutritional factors (Part II)

- 1. Exercise
- 2. Stress
- 3. Sperm oxidative stress
- 4. Volatile organic compounds (VOCs)
- 5. Fire retardant chemicals
- 6. Cosmetics
- 7. Mothballs
- 8. Smoking
- 9. Dental Hygiene
- 10. Acupuncture
- 11. Chinese medicine

#### Part I

## **Dietary Habits and Reproductive Health**

Following a health-promoting IVF diet and taking nutritional supplements are the most important steps in optimizing your reproductive health.

#### 1. Optimize Your Body's Acid-Alkaline Balance

The pH of our blood is slightly alkaline. The choices of foods we eat affect our bodies' acid-alkaline balance. The typical North American diet is **highly** acidic.

If we eat acidic food, our bodies must compensate to keep the blood alkaline. This extra work stresses our body and our immune system and can result in a decrease in fertility potential.

The best way to maintain a proper blood pH balance is to **avoid acid-producing foods and increase the consumption of alkaline foods**. Be in control of what ingredients you eat; prepare your food as much as possible; do not eat out.

For optimal acid-alkaline balance, follow these rules as closely as possible:

#### A. Minimize or eliminate the intake of the following acidic foods:

1. All grains and foods made from flour: bread, pasta, pastry, cereal, dumplings, tortillas, chips, cupcakes, cakes, cookies, pancakes, puddings, muffins, crackers, tacos, pretzels, bagels, doughnuts, etc.

This includes whole wheat, whole grain, multigrain, bulgur flour products, brown rice, oats, and barley.

**Corn and all corn products**, including high fructose corn syrup, **MUST be avoided** altogether (see below). Unfortunately, this can be difficult as most processed (grocery store) foods contain corn products.

Having up to two cups of cooked white rice a day is OK. Substituting quinoa and buckwheat instead of grains is OK. Beans and legumes are OK (not canned), but diligent overnight soaking before cooking is necessary for the proper digestion and nutrient absorption of legumes.

- 2. **Dairy** (especially hard cheese, i.e., Parmesan) Butter, buttermilk, unsweetened kefir, and unsweetened yogurt are OK. Alternatively, you can use unsweetened coconut, hazelnut, hemp, almond, or flaxseed milk.
- 3. Cranberries (all other berries are OK)
- 4. Processed meat (salami, sausages, hot dogs, canned meat) should be avoided.
- 5. Consumption of carbonated beverages (soda) should be minimized or eliminated.

# B. Increase intake of the following alkaline foods (organically grown if possible)\*:

•	Apples	•	Cantaloupe	•	Green peas	•	Papaya
•	Apricots	•	Carrots	•	Grapefruit	•	Parsley
•	Artichoke	•	Cauliflower	•	Grapes	•	Peach
•	Asparagus	•	Celery	•	Kale	•	Pear
•	Avocado	•	Chard	•	Kiwi	•	Persimmon
•	Bananas	•	Coconut	•	Lemon	•	Pineapple
•	Berries	•	Cucumber	•	Lettuce	•	Raisins
•	Beets	•	Dates	•	Mango	•	Spinach
•	Bell peppers	•	Eggplant	•	Melons (all)	•	Salad mix
•	Bok Choy	•	Fennel	•	Nectarine	•	String beans
•	Broccoli	•	Figs	•	Olives	•	Sweet potatoes
•	Brussels spr.	•	Garlic	•	Onions	•	Tomatoes
•	Cabbage	•	Ginger	•	Orange	•	Zucchini

<sup>\*</sup> Items in **bold** are particularly useful. Please note that all citrus fruits have an alkaline effect.

Consume an abundance of fresh green leafy vegetables (salads).

## 2. Avoiding Pesticides

People who eat **organic produce** eat fewer pesticides. The following table will help you decide which produce may be safe to buy conventional and which you should always purchase organic.

(Lower numbers = More pesticides = Buy organic instead)

1	2	2	4	F
	2	3	4	5
Apples	Peaches	Nectarines	Strawberries	Grapes
6	7	8	9	10
Celery	Spinach	Bell peppers	Cucumbers	Cherry tomatoes
11	12	13	14	15
Snap peas-import.	Potatoes	Hot peppers	Blueberries-domest.	Lettuce
16	17	18	19	20
				20
Kale/collard greens	Cherries	Plums	Pears	Green beans
21	22	23	24	25
			68	<b>&gt;</b>
Raspberries	Winter squash	Tangerines	Blueberries-import.	Carrots
26	27	28	29	30
100				
Summer squash	Broccoli	Snap peas-domest.	Green onions	Bananas
31	32	33	34	35
		Constitution of the second		
Oranges	Tomatoes	Watermelon	Honeydew melon 39	Mushrooms
36	37	38	39	40
Sweet potatoes	Cauliflower	Cantaloupe	Grapefruit	Eggplant
41	42	43	44	45
Kiwi	Papayas	Mangos	Asparagus	Onions
46	47	48	49	50
The state of the s				Je
Sweet peas frozen	Cabbage	Pineapples	Sweet Corn	Avocados

You must make fruits and vegetables the foundation of your reproductive health diet. The health benefits of a diet rich in fruits and vegetables even outweigh the risks of pesticide exposure. Eating conventionally grown produce is better than skipping fruits and vegetables if you cannot buy organic.

#### 3. Reduce Your Omega-6 to Omega-3 Fatty Acid Ratio

Throughout human history, there has been a dramatic change in the ratio of omega-6 and omega-3 fats consumed in the diet. This change, perhaps more than any other dietary factor, has contributed to the modern disease epidemic. Elevated omega-6 intake is associated with a systemic inflammatory response in the body and abnormal immunological response. This state of chronic "silent" inflammation can **significantly** impact reproductive health.

It is essential to decrease the omega-6 to omega-3 ratio:

## A. Eliminate or minimize your intake of high omega-6 trans fatty acids (very important):

- 1. **Corn and corn products must be eliminated** from your diet. Corn has the worst fatty acid profile (omega-6 to omega-3 ratio) of nearly all grains.
- 2. **All grains** and foods made out of flour should be eliminated or minimized.
- 3. In addition to eliminating corn oil from your diet, also avoid soybean, canola, sunflower, safflower, cottonseed, grapeseed, walnut, sesame, peanut, and vegetable oils. Americans get almost 20% of their calories from a single food source soybean oil.
- 4. Hydrogenated or partially hydrogenated fats (vegetable shortening, margarine)

#### 5. Fried foods

If you must have occasional fried food, use only ghee (clarified butter), avocado oil, light olive oil (not extra virgin), and coconut oil (not extra virgin). It is OK to use extra virgin olive oil if not heated (salad dressings, etc.).

#### 6. Junk food

#### B. Consume an abundance of foods high in omega-3 essential fatty acids:

- 1. Deep-sea fish from non-polluted sources: <a href="mailto:bayivf.com/fish">bayivf.com/fish</a>
- 2. Seaweed
- 3. Flaxseed oil
- 4. Flax, chia, sesame, and pumpkin seeds
- 5. Broccoli, cauliflower, spinach, kale, collards, cabbage, Brussels sprouts, and squash
- 6. Coconut oil, coconut milk, and coconut products, although not an omega-3 or omega-6 fat, contain **highly beneficial** dietary fat. Coconut's health benefits derive from its unique medium-chain fatty acids.

#### C. Take high-quality Omega-3 supplements:

Daily and consistent use of an omega-3 supplement (from fish oil products\*) by **both partners** (if applicable) is critical for good reproductive health and is part of your treatment at Bay IVF.

Since high levels of omega-6 fatty acids interfere with the absorption of omega-3 from the digestive system, it is not sufficient to only take omega-3 supplements; you must eliminate/minimize the intake of foods high in omega-6 as well.

We recommend **Ultimate Omega® Xtra** produced by Nordic Naturals, as the highest-quality omega-3 supplement. Nordic Naturals products surpass strict international standards for purity and freshness and have no fishy smell, taste, or aftertaste.

You can use another omega-3 supplement of your choice, as long as it contains a minimum of 2,400 mg of EPA and DHA in approximately 2:1 ratio daily and has been certified by the <u>International Fish Oil Standards Program</u> (IFOS).

It is important to start taking the omega-3 supplements as much in advance of your treatment as possible. Both partners are encouraged to begin the regimen **right away**.

There are several ways to obtain Ultimate Omega® Xtra:

- 1. You can purchase it locally.
- 2. You can buy it online.
- 3. You can pick up Ultimate Omega® Xtra at Bay IVF in person once you have made an appointment, even if you have not been seen at our Clinic yet. You will receive Ultimate Omega® Xtra at our cost.

Please note that each partner should start taking **FOUR** soft gels of Ultimate Omega® Xtra a day (in a single dose or divided into two doses a day) **as soon as possible**. It is important to be on this supplement even if you already take fish oil.

\*There is a non-fish-based, vegetarian omega-3 alternative to Ultimate Omega® Xtra. It is not as effective as Ultimate Omega® Xtra and should not be used as a first-choice omega-3 supplement. Please call us for additional information.

#### 4. Reduce Your Dietary Glycemic Load

Glucose, a form of sugar, is a primary energy source for body cells. Carbohydrates in food are a major source of glucose. After we eat or drink something with carbohydrates, our body breaks down the carbohydrates, converting them into sugar. The sugar then enters our bloodstream. Hormone insulin moves sugar from the bloodstream into individual cells throughout our body to provide energy. Extra sugar is stored in our liver and muscles in a form called glycogen. Excessive sugar is stored as fat.

Our ancestors consumed, on average, about 80 grams of carbohydrates a day compared to the 350-600 grams a day in the typical American diet today.

The glycemic index ranks foods and beverages based on how they affect blood sugar levels. Our body rapidly digests foods and beverages with high glycemic index scores. This causes a spike in our blood sugar and insulin levels, which may then be followed by a rapid decline in blood sugar, creating wide fluctuations in our blood sugar levels. As a result, the body has trouble responding, and over time, this contributes to **insulin resistance**.

Insulin resistance is associated with a host of health problems, including **suboptimal fertility**. In addition, our shared genetic susceptibility to insulin resistance, inflammation, cardiovascular disease, and obesity shows that refined sugar or grain harms our health.

In contrast, items with low glycemic index rankings (most fruits and vegetables) are digested more slowly, raising blood sugar in a more controlled and gradual way.

Research shows that, like cholesterol, there are good and bad sugars. High-fructose corn syrup and crystalline fructose are the worst. Today, 55% of sweeteners used in food and beverage manufacturing are made from corn.

#### A. Examples of high glycemic index foods:

- High-fructose corn syrup must be avoided.
- Consumption of all grains and foods made out of flour should be minimized or avoided.
- Minimize consumption of **potatoes** and potato products.

#### B. Examples of low glycemic index foods:

Fruits and vegetables

Make fresh vegetables the base of your food pyramid.

- Legumes
- Seeds
- Nuts
- Seafood and meats
- Eggs
- Dairy products

If you want to use a sweetener occasionally:

- Use the herb Stevia.
- Use organic cane sugar in **strict** moderation.
- Use organic raw honey in moderation.

#### 5. Reproductive Hormones Imbalance

One of the primary environmental causes of hormone imbalance for both men and women is dietary.

#### A. Low nutritional value diet:

A diet that is high in sugar, flour, caffeine, nicotine, alcohol, and processed food can have a significantly negative impact on our endocrine system. Therefore, it is imperative to avoid, or at least minimize, the consumption of these foods.

#### B. Soy products:

Soy is not part of the original human diet. Only very recently has soy been eaten the way we typically eat it: consuming significant amounts in an unfermented and often highly processed form. Soy, soy flour, and soy products are in almost every packaged food today. As a result, Americans now get nearly 20% of their calories from a single food source: soybean oil.

Traditionally, Asians eat only small amounts of **fermented** soy products (miso, tempeh, or soy sauce) as a condiment. The Japanese typically combine it with fish broth and seaweed that naturally contains iodine, helping offset the thyroid-suppressing effects of soy.

Soy Phytoestrogens are plant-based estrogens that act like hormones. There are enough of them in soy to disrupt endocrine function and have the potential to impair reproductive health.

Unfermented soy products should be avoided.

#### C. Toxic plastics additives:

Phthalates (PBA) are chemicals used in many plastics to make them soft or flexible. They are widely used in plastic products in the food industry and a vast array of everyday products. Since phthalates are not chemically bound to the plastic, they can easily migrate out, especially with increased temperature (cooking).

Studies have shown that most Americans have phthalates in their urine and that all of us are exposed to phthalates from such ubiquitous sources as air, water, soil, and food.

Phthalates are estrogenic/anti-androgenic compounds and can significantly negatively impact reproductive health. For example, they can affect sperm quality, lower the embryo implantation rate, and increase the risk of miscarriage.

#### Avoid the following:

- 1. Microwaving foods in plastic containers
- 2. Consuming ready-made meals in plastic trays or trays covered with plastic film
- 3. Consuming boil-in-bag foods
- 4. Bottled water in plastic containers

Drink only filtered water or water sold in glass or metal containers. For instance, levels of BPA increase by about 1000-fold in the water of a bottle that has been sitting in the sun.

#### 5. Canned foods

Cans (including soda) are lined with a plastic lacquer containing BPA.

- 6. Putting very hot or boiling liquid in plastic containers if you plan to consume the liquid
- 7. Wrapping food in stretch wrap
- 8. Cooking with Teflon cookware
- 9. Handling cash register receipts which are often coated with resins that contain BPA
- 10. Exposure to phthalates released from plastic car interiors, i.e., "new car" smell

#### 6. Nutritional Deficiencies

Scientific evidence shows that taking high-potency multivitamins can significantly increase reproductive health in both men and women and, at the same time, reduce the probability of birth defects in offspring.

Daily and consistent use of high-quality, high-potency multivitamins by **both partners** (if applicable) is critical for good reproductive health and a part of your treatment at Bay IVF.

Supplements are not intended to substitute for a well-balanced diet because they cannot replicate all the nutrients and benefits of whole foods, such as fruits and vegetables.

We recommend Alive!® Women's Multi Max Potency and Alive!® Men's Multi Max Potency multivitamins produced by Nature's Way, three tablets daily.

You can use another high-potency multivitamin supplement of your choice, as long as it contains a minimum of 800 mcg of folic acid a day for women and at least 22 mg of zinc a day for men.

ConsumersAdvocate.org has an excellent <u>in-depth review of prenatal vitamins</u> *▶* to choose from.

It is important to start taking the multivitamin supplements as much in advance of your treatment as possible. Both partners are encouraged to begin the regimen **as soon as possible**.

There are several ways to obtain Alive!® Women's Multi Max Potency and Alive!® Men's Multi Max Potency multivitamins:

- 1. You can purchase them locally
- 2. You can buy them online:
  - Visit: naturesway.com
  - Search for Alive!® Women's Multi Max Potency and Alive!® Men's Multi Max Potency.
- 3. You can pick up Alive!® Women's Multi Max Potency and Alive!® Men's Multi Max Potency multivitamins at Bay IVF in person once you have made an appointment, even if you have not been seen at our Clinic yet. You will receive them at our cost.

Please note that each partner should start taking three tablets a day of the multivitamins **as soon as possible**.

#### 7. Impact of CoQ10 on Eggs and Sperm

Coenzyme Q10 (CoQ10) is critical to energy production in the reproductive cells.

As eggs within the ovaries age, their mitochondria produce diminishing amounts of coenzyme Q10 resulting in decreased metabolic activity, a reduced probability of fertilization, and an increased frequency of embryonic chromosomal abnormalities.

Low levels of CoQ10 in the seminal fluid have been associated with low sperm count, decreased sperm motility, and male infertility.

It may be possible to reverse the effects of low CoQ10 levels on eggs and sperm by supplementation with CoQ10.

Your treatment at Bay IVF includes a daily intake of 300 mg of CoQ10 / Ubiquinol by **both partners** (if applicable). We recommend **UBQH™**, produced by Integrative Therapeutics.

It is important to start taking the CoQ10 supplements as much in advance of your treatment as possible.

CoQ10 may increase the effect of medications used to lower blood pressure. Please consult your physician before starting CoQ10 if you take high blood pressure medications.

There are several ways to obtain Integrative Therapeutics **UBQH™** CoQ10 supplements:

- 1. You may be able to purchase them locally from a health food store.
- 2. You can buy them online: Search for Integrative Therapeutics UBQH™100 mg.
- 3. You can pick up Integrative Therapeutics UBQH™ supplements at Bay IVF in person once you have made an appointment, even if you have not been seen at our Clinic yet. You will receive them at our cost.

Please note that each partner should start taking a total of 300 mg UBQH™ daily as soon as possible.

#### 8. Alcohol

Alcohol intake by **both partners** reduces IVF success and increases miscarriage probability. Couples need to abstain before and during treatment.

#### 9. Caffeine

**Both partners** should eliminate caffeine consumption (coffee, caffeinated tea, soda) before and during treatment. Caffeine may decrease IVF success, and it has been shown to almost double the risk of a miscarriage. In addition, male preconception consumption of caffeinated beverages has been as strongly associated with pregnancy loss as female caffeine intake.

#### 10. Advanced Glycation End-Products

Advanced glycation end-products (AGEs) are toxic end-products of foods cooked at high heat (grilling, barbecuing, broiling, and frying). Elevated levels of AGEs in serum and follicular fluid have been associated with reduced ovarian response and a reduced chance of pregnancy.

Charred food also contains cancer-causing chemicals. Boiling, microwaving, and poaching are ideal ways to avoid overheating foods.

#### 11. Hydration

The body is over 70% water. Staying well-hydrated is a prerequisite for good reproductive health. Adequate hydration is essential for transporting nutrients throughout our body and flushing toxic waste out of our body.

As a general rule of thumb, divide your weight in pounds by 2; this is the minimum amount of fluids (water) in ounces you should consume daily. Thirst is not a good indicator of our hydration level. By the time we experience thirst, we are already dehydrated.

The color of urine is a reliable barometer of hydration. When we are sufficiently hydrated, our urine is clear or very pale. As you take vitamin and mineral supplements, your urine will be darker. Despite supplementation, your urine should be close to colorless at least once each day. If your urine is persistently clear, you are consuming too much fluids. This can lead to a potentially dangerous mineral imbalance.

#### A. Hydrate with:

- 1. Filtered water
- 2. Water sold in glass or metal containers

#### B. Avoid the following:

- 1. Water/beverages sold in plastic containers
- 2. Sports drinks (most of them contain corn syrup or too much sucrose)
- 3. Caffeinated beverages (diuretic effect)
- 4. Carbonated beverages (acidic effect)
- 5. Apple juice (diuretic effect)
- 6. Alcoholic beverages (cause dehydration)

#### 12. Reproductive Health-Promoting Diet

#### In summary, your diet should mainly consist of some or all of the following:

- 1. Fresh fruits and vegetables, especially large salads
- 2. Cooked vegetables
- 3. Less red meat and saturated fat
- 4. Fish from non-polluted sources (bayivf.com/fish)
- 5. No fried food
- 6. Beans and legumes (not canned) soaked overnight before cooking
- 7. White rice in moderation
- 8. Quinoa and buckwheat
- 9. Sweet potatoes
- 10. Eggs in moderation
- 11. Butter, buttermilk, unsweetened kefir, and unsweetened yogurt
- 12. Ghee, avocado oil, olive oil, and coconut oil for cooking
- 13. Coconut products
- 14. Honey in moderation
- 15. Antioxidants (very important):
  - a. Decaf green tea (1-3 cups a day, no sugar, honey is OK)
  - b. Berries
  - c. One oz. of Mast 80%, Taza 70%, Ghirardelli 72% and higher, or Valrhona 85% chocolate a day (heavy metals safe)
  - d. Spices, especially turmeric, cumin, ginger, and oregano
- 16. Water

#### Part II

#### **Non-nutritional Factors**

#### 1. Exercise

Exercise has a significant impact on improving insulin sensitivity (decreasing insulin resistance).

Frequent and consistent exercise by **both partners** (if applicable) is critical for good reproductive health and is a part of your treatment at Bay IVF.

Exercise by both the male and the female partners is associated with improved egg and sperm function and IVF outcomes. For example, in one study, exercise increased the pregnancy rate more than threefold.

Resistance training (i.e., "pumping iron") is as effective as aerobic activity ("cardio"), but a mix of the two is the best.

If you do not exercise regularly (several times a week), start brisk walks outdoors for a minimum of 30 minutes most days of the week.

#### 2. Stress

"The majority of the research thus far does support the theory that the more distressed one is before an IVF cycle, the less likely one is to conceive."

Alice Domar, Ph.D., Assistant Professor of Obstetrics, Gynecology, and Reproductive Biology,
Harvard Medical School

For a woman, the stress of infertility has been compared to having a diagnosis of cancer or HIV. Full-time employment, hostile mood, depression, and higher anxiety have been shown to correlate with the retrieval of fewer eggs and IVF failure.

Stress shifts blood supply to the heart, brain, and muscles from "non-essential" organs, such as the ovaries. Stress increases the levels of circulating stress hormones cortisol and norepinephrine (noradrenaline), resulting in vasoconstriction and reducing blood flow to the ovaries.

A Mind/Body Program for Infertility (<u>FertilityWithin.com/Course</u>) that includes relaxation training, stress management strategies, lifestyle recommendations, and group support resulted in a pregnancy rate of 52% compared with 20% for couples who did not participate.

There are many stress-reducing techniques. Some of the more popular methods that have been shown to be associated with increased pregnancy rates are (in alphabetical order):

- <u>Acupuncture</u>
- Exercise
- Guided imagery
- Journaling
- Listening to music
- Massage therapy
- Meditation
- Mind-body groups
- Practicing relaxation

- Psychotherapy
- Self-help books
- Support/educational groups
- Taking on fewer tasks
- Taking time off from work
- Visualization
- Walking/hiking
- Yoga

If you do not have a counselor, please visit <u>bayivf.com/counseling</u> for a list of therapists specializing in infertility, most of whom have previously worked with Bay IVF patients.

#### 3. Sperm Oxidative Stress

Sperm loses most of its antioxidant defenses during maturation by shedding its cytoplasm, making it acutely sensitive to oxidative stress. Sperm are primarily affected by oxidative stress during passage through the male collecting system. Infrequent ejaculation, therefore, worsens exposure to oxidative stress.

From the beginning of your treatment, the male partner should ejaculate by intercourse or masturbation at least every 2-4 days. The last ejaculation before IVF egg retrieval must be 1 to 2 days before the retrieval, and only by masturbation if done the day before the egg retrieval.

#### 4. Volatile Organic Compounds (VOCs)

Many everyday products release VOCs. It is very important to minimize your exposure (both partners) to VOCs:

- 1. Consider sleeping with your bedroom windows wide open year-round.
- 2. Petroleum products: Avoid car exhaust fumes and solvents; use disposable gloves when filling your car.
- 3. The release of VOCs from plastics and building materials:
  - Do not drive a new car when trying to conceive.
  - Do not remodel your home or buy a newly constructed house.
  - Do not stay in the proximity of artificial turf sports fields.
- 4. No exposure to cigarette smoke (both partners).
- 5. Eliminate or minimize the use of perfumes and colognes (unscented deodorant is OK).
- 6. Do not dry-clean your clothes.
- 7. Eliminate air fresheners at home and in your car(s).

#### 5. Fire Retardant Chemicals

Evidence shows that flame retardants, polybrominated diphenyl ethers (PBDEs), can reduce fertility. Nearly all Americans tested have at least trace levels of flame retardants in their body. Try to minimize your exposure to flame retardants by using bedding and pajamas that are fire retardant-free.

#### 6. Cosmetics

Eliminate/minimize the use of cosmetics. Face makeup, eye makeup, and lip makeup contain a vast number of chemicals. The "dirty dozen" cosmetics ingredients are butylated hydroxyanisole, Coal tar dyes, diethanolamine compounds, dibutyl phthalate, formaldehyde-realizing preservatives, parabens, parfum, polyethylene glycol compounds, petrolatum, siloxanes, sodium laureth sulfate, and triclosan.

Most of these chemicals have demonstrated dermal absorption and can be harmful to the ovaries. In addition, the plastic packaging of many cosmetics may leach additional toxins into the product.

Sunscreen, hair dye, makeup remover, and nail polish are other potential harmful chemical source.

#### 7. Mothballs

If used, you must eliminate mothballs from your household. Mothballs are a pesticide product that contains either naphthalene or paradichlorobenzene as active ingredients. Both of these chemicals are toxic fumigants. Mothballs can seriously impair indoor air quality. When you smell mothballs, you are inhaling the insecticide.

Naphthalene is considered to be a carcinogen. Exposure of humans to naphthalene is associated with the destruction of red blood cells (hemolytic anemia), damage to the liver, and, in infants, neurological

damage and death. Paradichlorobenzene is a carcinogen and may cause damage to the liver and kidneys.

Consider using mothball alternatives: cloves, cedarwood, and lavender.

#### 8. Smoking

You must not smoke. Cigarette smoking, including passive, second-hand cigarette smoke exposure, dramatically affects egg quality and decreases male fertility potential. Smoking appears to accelerate the loss of eggs and reproductive function and may advance the time of menopause by several years. In addition, there is an increased risk of miscarriage and genetic abnormalities in offspring among smokers.

## 9. Dental Hygiene

Periodontal disease has been linked to infertility, increased likelihood of miscarriages, and poor sperm quality. Both partners should floss and **water pick** daily and have regular dental checkups.

### 10. Acupuncture

It is OK to have acupuncture. For a list of acupuncturists, please see <a href="mailto:bayivf.com/acupuncturists">bayivf.com/acupuncturists</a>.

### 11. Chinese Medicine

It is OK to use Chinese herbs as long as they only strengthen your health and **do not have any male or female hormone-like effect**.