

Kate Deering Interview on Bioenergetics

Analysis by [Dr. Joseph Mercola](#)

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STORY AT-A-GLANCE

- › Kate Deering, author of “How to Heal Your Metabolism,” has been involved in the health and fitness industry for more than three decades
- › She has a deep understanding of bioenergetics and, in our recent interview, we explore some of the nuances of applying bioenergetic therapies and how they can help you live with increased vigor and vitality
- › More than 95% of the population is not making enough adenosine triphosphate (ATP), which your cells need for life, repair and regeneration
- › For proper energy production, Deering says, you need four primary factors in alignment – the right fuel sources, oxygen, proper thyroid function and sunlight exposure
- › When you increase your cellular energy, many people experience profound mental health benefits, including moving from a space of surviving to thriving

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Kate Deering, author of “How to Heal Your Metabolism,” has been involved in the health and fitness industry for more than three decades. She has a deep understanding of bioenergetics and, in our recent interview, we explore some of the nuances of applying bioenergetic therapies and how they can help you live with increased vigor and vitality.

Deering was eating healthy and exercising – doing everything “right” – and felt great until she entered her 40s. That’s when she hit a wall and, like many people as they get

older, felt her energy and health decline:

"I was eating a very high-protein diet, low-carb diet, and it worked until it didn't work. And my system didn't respond the way I wanted to any longer. And it could have been the start of some level of perimenopause.

At the time, I had no idea. I just thought, I am doing everything right and it doesn't seem to be ... helping me. I was gaining weight, my sleep started to go, my cycle became inconsistent. I just felt fatigued. And I think a lot of women can resonate. You just don't feel like yourself.

And so I was like, is this it? Is this what 40 feels like? And you come to this point, maybe this is what everyone's saying, you hit 40 and all of a sudden life shifts. At that point, that's when I started to learn about Dr. [Ray] Peat's work, the bioenergetics space and how monitoring health on an energetic perspective is really the meaning of health and how well your metabolism is running."

More Than 95% of People Are Energy Deficient

There's more to optimal health than being "lean and fit," Deering realized, as even in this state it's possible to be energy deficient. More than 95% of the population is not making enough adenosine triphosphate (ATP), which your cells need for life, repair and regeneration. ATP is the metabolic energy that sustains life. Deering explains:¹

"We can't use food or calories directly. We have to convert that into ATP through many different processes. And so many things are reliant upon that conversion. I always tell people if I was to go over to Europe, I can't use the American dollar over there, I have to convert it into euros. And your body's the same way. You have to convert calorie energy from food into ATP, and that's what runs your system.

And if you don't do that well, you will be under energized, which is going to create more problems and metabolic problems into your system. And it's not a matter of there's too much food consumption or calories coming in. It's a

problem is that you are unable to convert those calories into usable energy so your body can run effectively.”

Deering started to pay attention to signs such as her body temperature, pulse, digestion and sleep, “all of these markers that I avoided because all I was looking at before was you’re lean and you’re fit.” Measuring body temperature, for instance, is a simple way to tell how well your body is creating and utilizing energy. A lower body temperature signals that you’re not producing enough energy and have less than optimal metabolic function.

“I realized at the time I wasn't very healthy. My body temperature was like 96.5. My pulse was like 55. I mean, I had numbers of an athlete or an endurance athlete, a body that was very inefficient, but I didn't have a metabolism that was functioning optimally for me,” Deering said.²

She took a 180-approach, adding dairy and carbohydrates to her diet immediately. While she admits she should have taken a more gradual approach and made too many changes too quickly, over time the new dietary approach stabilized her system:

“If I was eating the right foods consistently through the day, my body felt regulated. I felt very stable in my energy, stable in my mood, slept very well, my cycle regulated, all these perimenopausal symptoms just literally went away. And I thought ... I have the Holy Grail ... this is what health is.

My body temperature went up, my pulse went up. And so things just all of a sudden completely shifted on me and I just started to now look through this different lens.”

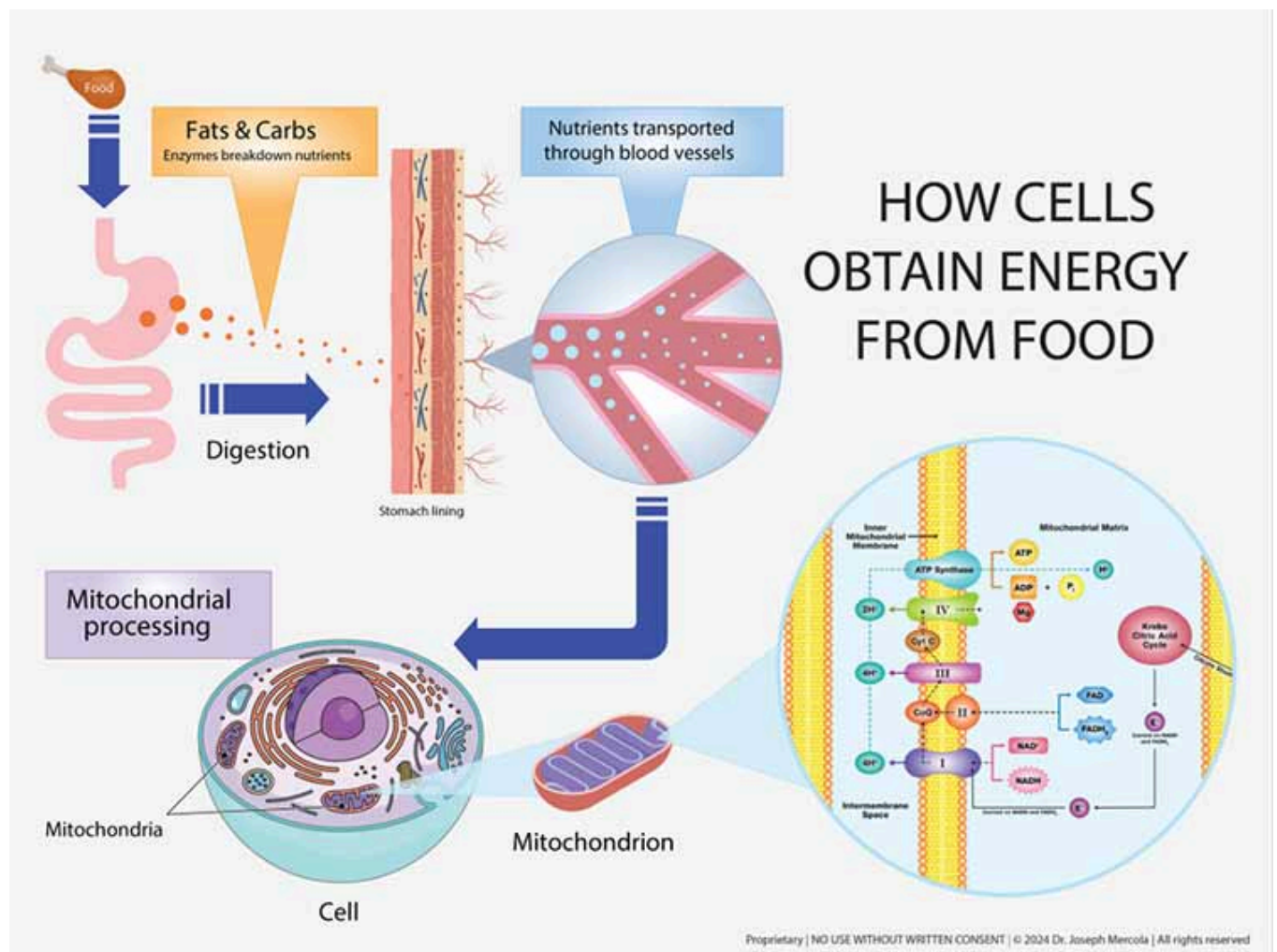
Four Factors Necessary for Proper Energy Production

Deering, who offers nutritional coaching, says the biggest issues she sees in her practice are blood sugar and digestive issues. To get to the underlying problems, however, she first looks at the energy system and how you produce energy. For proper energy production, Deering says, you need four primary factors in alignment.

1. The right fuel sources – glucose – “You need the right fuel sources and you certainly can produce energy from fat ... We all utilize fat all day long, but certainly when your body's under stress or the needs go up, then glucose is going to be your primary because you can just utilize it faster. It kind of goes through the entire cycle faster,” Deering says.³

“And ... if you understand the electron transport chain (ETC), it seems to flow through because how it enters into that whole series of events at complex one as fat sometimes with NADH and FADH₂ at complex two. And that whole chain can bottleneck. And so, when we utilize glucose properly, it does flow faster through that system, which allows us to produce more ATP over time.”

In other words, while you can get energy from fat, when your body is under stress or needs more energy quickly, it primarily uses glucose because it can be processed faster. Glucose goes through the energy production process more efficiently than fat. In simple terms, glucose helps your body make energy faster, especially when it needs it urgently.



2. Optimal oxygen production – Oxygen is vital for energy metabolism. It is the final electron acceptor in the electron transport chain. And when O₂ isn't available in your cell, your cell then uses the far more inefficient glycolytic pathway (fermentation) for energy production more than necessary.

“If you're in a low oxygenated state, whether you're a core breather or you're anemic for one reason or another, or you have nutrient deficiencies that are creating a low-oxygen state, then that is also going to slow down the entire way you can produce energy.”

Deering says, “That's why every anemic person is tired. Is it inherently that it's iron? No, it's just, well, iron is helpful for hemoglobin and then you need more hemoglobin for oxygenation and that's the oxygenation that's creating you to be tired.”⁴

3. Proper thyroid function – High intake of omega-6 polyunsaturated fat like **linoleic acid** can have a detrimental impact on your **thyroid and metabolic health** by affecting cells' use of thyroid hormones. A carb-rich low-PUFA diet will support thyroid health by balancing estrogen levels, ensuring glucose availability and safeguarding your cells' ability to use active thyroid hormone.

“Anyone that's low thyroid obviously usually has an energy issue. Getting the right amount of thyroid or figuring out what's blocking thyroid is a very important part of that equation,” Deering says.⁵

4. Sunlight exposure – The fourth requirement to produce energy effectively, according to Deering, is regular sunlight exposure. “I also like to add in sun because we need sun for life and to produce energy,” she says.

In addition to adding in these four factors to encourage energy production, it's important to remove energy blocks. This can include gastrointestinal issues, microbiome problems, including leaky gut, excess estrogen and endotoxins, which can inhibit cellular respiration. Deering explains:⁶

“Endotoxins are bacterial toxins that your bacteria will produce ... if somebody's stressed or has some sort of leaky gut, they can get into your blood system and essentially poison your system and poison your cells and you will become a poor energy producer at this point in time.

Iron overload is also one of those things. Estrogen can also be an inhibitor ... and estrogen tends to promote fat oxidation and progesterone tends to promote glucose oxidation. And so that's why it would make sense to utilize progesterone because of how it works within the energy system.”

How to Use Progesterone

Before you consider using progesterone, it is important to understand that it is not a magic bullet, and that you get the most benefit by implementing a Bioenergetic diet approach that allows you to effectively burn glucose as your primary fuel without

backing up electrons in your mitochondria that reduces your energy production. My new book, "Your Guide to Cellular Health: Unlocking the Science of Longevity and Joy," covers this process in great detail.

Once you have dialed in your diet, an effective strategy that can help counteract estrogen excess is to take transmucosal progesterone (i.e., applied to your gums, not oral or transdermal), which is a natural estrogen antagonist. Progesterone is one of only four hormones I believe many adults can benefit from. (The other three are thyroid hormone T3, DHEA and pregnenolone.)

I do not recommend transdermal progesterone, as your skin expresses high levels of 5-alpha reductase enzyme, which causes a significant portion of the progesterone you're taking to be irreversibly converted primarily into allopregnanolone and cannot be converted back into progesterone.

Ideal Way to Administer Progesterone

Please note that when progesterone is used transmucosally on your gums as I advise, the FDA believes that somehow converts it into a drug and prohibits any company from advising that on its label. This is why companies like Health Natura promotes their progesterone products as "topical."

However, please understand that it is perfectly legal for any physician to recommend an off-label indication for a drug to their patient. In this case, progesterone is a natural hormone and not a drug and is very safe even in high doses. This is unlike synthetic progesterone called progestins that are used by drug companies, but frequently, and incorrectly, referred.

Dr. Ray Peat has done the seminal work in progesterone and probably was the world's greatest expert on progesterone. He wrote his Ph.D. on estrogen in 1982 and spent most of his professional career documenting the need to counteract the dangers of excess estrogen with low-LA diets and transmucosal progesterone supplementation.

He determined that most solvents do not dissolve progesterone well and discovered that vitamin E is the best solvent to optimally provide progesterone in your tissue. Vitamin E also protects you against damage from LA. You just need to be very careful about which vitamin E you use as most supplemental vitamin E on the market is worse than worthless and will cause you harm not benefit.

It is imperative to avoid using any synthetic vitamin E (alpha tocopherol acetate – the acetate indicates that it's synthetic). Natural vitamin E will be labeled "d alpha tocopherol." This is the pure D isomer, which is what your body can use.

There are also other vitamin E isomers, and you want the complete spectrum of tocopherols and tocotrienols, specifically the beta, gamma, and delta types, in the effective D isomer. As an example of an ideal vitamin E, you can look at the label on our vitamin E in our store. You can use any brand that has a similar label.

You can purchase pharmaceutical grade bioidentical progesterone as Progesterone Powder, Bioidentical Micronized Powder, 10 grams for about \$40 on many online stores like Amazon. That is nearly a year's supply, depending on the dose you choose.

However, you will need to purchase some small stainless steel measuring spoons as you will need a 1/64 tsp, which is 25 mg and a 1/32 tsp, which is 50 mg. A normal dose is typically 25 to 50 mg and is taken 30 minutes before bed, as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

Unfortunately, this vendor frequently runs out of product, and if that's the case, then you can use [Simply Progesterone by Health Natura](#). It's premixed with vitamin E and MCT oil. Again, while Health Natura states that its product is for "topical use only," I recommend applying it transmucosally, by rubbing it on your gums.

If you are a menstruating woman, you should take the progesterone during the luteal phase or the last half of your cycle, which can be determined by starting 10 days after the first day of your period and stopping the progesterone when your period starts.

If you are a male or non-menstruating woman, you can take the progesterone every day for four to six months and then cycle off for one week. The best time of day to take progesterone is 30 minutes before bed as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

This is what I have been personally doing for over a year with very good results. I am a physician so do not have any problems doing this. If you aren't a physician, you should consult one before using this therapy, as transmucosal progesterone therapy requires a doctor's prescription.

Work on Your Food First, Then Add Progesterone

Deering suggests that, for best results, you should get healthy first, including implementing the correct strategies to optimize your cellular energy production, before adding in progesterone:

"My experience with using those types of hormones with people is not everybody, when you put them into people and the humans and all their complexities, it never works as simply as that's just going to be the magic bullet because it isn't a magic bullet. Can it certainly help people? Yes. Have I seen it actually help people regulate blood sugar? Yes, because it can do that. It helps you utilize sugars over fats. But for some people they don't do well on it.

And a lot of the times it's because they haven't worked on the food part first. And I always believe you need to create a good environment.

And so because progesterone can help facilitate and actually improve metabolic rate, if you don't have the proper resources, meaning enough food and nutrition, and you give them something like a thermogenic progesterone or something like thyroid or even caffeine for that matter, it can actually make them feel worse because you're basically putting the gas on the car with not enough fuel or enough nutrients.

So, you're making them try to go through the system a lot quicker with not the right resources available. So, I always say work on your food first, make sure that there's enough fuel, carbs, fat, and then the nutrients available with it, and you probably need to give yourself some time to do that before I would add maybe or suggest some hormone.

Now, it doesn't mean that some people don't start with that and can get a positive result. They can, but I think it's always best to make sure you have optimal resources first before probably initiating something like that."

Magnesium, Vitamin D and Other Top Supplements

After you've addressed your diet, Deering described several supplements that many people benefit from. "Don't go to supplements first. Go to food first. Start there. That's step one," she says. "But, I find most people, it helps them to be on some level of magnesium," she says, as you need magnesium to make ATP, and you don't want to create a bottleneck there.

She also finds about 95% of people have low vitamin D, and feel better on a vitamin D supplement, provided they aren't able to get adequate sun exposure daily. "If they're in a place where they can get enough sun, then that's great. If they're not, I always want everyone to check their vitamin D level. I am actually someone that will put someone on vitamin D if it's too low in their northern climate, because I find that most people do not have high enough levels," she says.

Aspirin is another supplement Deering says many people can benefit from, provided you take it with food. Although many are concerned about aspirin use it would be wise to review my [earlier article on this topic](#):

"I think aspirin's a very safe supplement. I think it can be utilized for a lot of different things. It can help with blood sugar. It can help with sleep. It's an aromatase inhibitor. There's so many beneficial properties from using

something like aspirin in different modalities, and it's cheap. It's accessible. As long as you're consuming with food, it could be a really helpful."

Deering also recommends B vitamins, ideally from beef liver and oysters:

"I always be like beef, liver and oysters if you want to get those [B vitamins]. But if they won't do those things, then yes, all the Bs are super important for the most part. Yes, thiamin is very important because it's needed at a lot higher rate during carbohydrate metabolism.

And so, if somebody is B1 deficient, which I find that some people are, then yes, adding a good source of B1 can be super effective. Even biotin, B2 in some level of combination, because they all seem to work well together because you use those B vitamins through cellular metabolism in so many spaces.

... And obviously niacinamide is one that's certainly promoted in this space as well. So having B3 as well certainly promoted. And one of the reasons is it inhibits fatty acid release into the blood system, so it tends to inhibit that stress response per se. And that's why doing small amounts of niacinamide throughout the day can be a very effective for a lot of different people."

Healing Your Metabolism Propels You from Surviving to Thriving

Your brain consumes 20% of your energy, so it makes perfect sense that when you're energy deficient, you're not going to think very well. Therefore, when you increase your cellular energy, many people experience profound mental health benefits, including finding joy and a higher purpose. Deering says:⁷

"What I have found is that a lot of people wake up, meaning they've been in such a survival space for so long. When you get them energized and feeling better, all of a sudden they're like, I never realized how much I don't like my job, or I don't like my spouse. Or I've gone through breakups with people.

I have gone through job shifts with people because now they're capable to get out of that learned helplessness space. And now they're actually like, what do I really want out of my life? Now I feel better.

Now they're looking at everything and wait a minute, is this what I wanted? They're not just in that state of survival and just living unconsciously. So now, they've actually now started creating a better life for themselves. So, there's layers. It's like I'm peeling the layer. And I'm not saying this is going to happen to everyone.

A lot of people are like, my life is great. I just need to eat better. OK, great. I want you to have a better life and be able to produce enough energy to do the life you want. I don't want to just say, well, you feel sick, so let's try to just take things off your plate so you can live in that sick state and not be so stressed."

If you want to learn more about how to use bioenergetic therapies to improve your health and life, you can read Deering's book, "How to Heal Your Metabolism." She's in the process of writing a second book, and you can also learn more at her website, katedeering.com.

Sources and References

- [1, 2, 3, 4, 5, 6, 7 Dr. Mercola Interviews Kate Deering](#)