Strength Nutrition Playbook

For Women 30-50

HOW TO FUEL AND SUPPORT YOUR BODY FOR BETTER RESULTS

WHY NUTRITION MATTERS

For strength training

When it comes to building strength, workouts are just one piece of the puzzle. What you eat, and when you eat, can make all the difference in your results, especially if you're a woman in your 30s or 40s.

Why Does Nutrition Matter?

Nutrition doesn't just impact performance for perimenopausal women. It also supports:

- Muscle gain and retention
- Faster recovery between workouts
- Stronger bones and joints
- Balanced hormones and metabolism
- Sustained energy throughout the day



Once perimenopuase hits, **muscle loss, insulin resistance**, and **hormone shifts** can all begin to creep in. The good news? With the right nutrition strategy, you can stay strong, lean, and resilient, no matter your age.

What You'll Learn

✔️ How to set personalized macronutrient targets
✔️ The best pre- and post-workout meals for strength
✔️ How to meet the leucine threshold for muscle gains
✔️ Nutrition tweaks for training vs rest days
✔️ Hormone supportive foods and timing strategies
✔️ Quick prep meals and supplement ideas

Whether you're just getting started or have been strength training for years, this playbook will help you fuel smarter and recover faster. Let's dig in!

MACRONUTRIENT TARGETS

For building strength

Protein



- Supports muscle repair, retention, and recovery
- Spread out over 3-4 meals daily

Daily target: 1.6-2.0 g per kg body weight

Leucine threshold: Aim for 2.0-2.5 g per meal to trigger protein synthesis (~25-30 g high quality protein per meal). See "The Leucine Threshold" section for more info.

Examples:

- 3-4 oz chicken or beef
- 1 cup Greek yogurt & hemp seeds
- 1 scoop whey + 1 tbsp collagen

Carbohydrates



- Main fuel for strength workouts
- Adjust intake based on training intensity

Daily target: 3-5 g per kg body weight

**Avoid simple carbs & opt for fiber rich complex carbs*

Examples:

- Oats
- Fruit
- Sweet potatoes
- Brown rice
- Quinoa
- Legumes

Fats



- Supports hormone production, energy, and joint health

Daily target: 20-35% of daily calories

**Minimum of 0.5-1.5 g of fat per kg of body weight*

Examples:

- Olive oil
- Avocado
- Nuts/seeds
- Nut butter
- Fatty fish (e.g. salmon, sardines, tuna)

THE LEUCINE THRESHOLD

Key to muscle growth

When it comes to building and maintaining muscle, protein quality matters just as much as quantity. One amino acid in particular deserves special attention: leucine. Leucine is the “trigger” that switches on muscle protein synthesis (MPS), which is the process your body uses to repair and build new muscle tissue after training.

Research shows that to fully activate MPS, you need to reach a leucine threshold of about **2.0–2.5 g per meal**, which is typically found in **25–30 g of high-quality protein**. This becomes even more important for women in their 30s, 40s, and beyond, as hormonal changes and anabolic resistance can make the muscles less responsive to smaller protein doses.

How to Hit Your Leucine Target



3–4 oz chicken, turkey, or beef (~2.5 g leucine)



1 cup Greek yogurt + hemp seeds (~2.3 g leucine)



1 scoop whey protein + 1 tbsp collagen (~2.5 g leucine)

Pro Tip: The post-workout meal is the most powerful window to hit your leucine target. Pairing leucine-rich protein with moderate carbohydrates here maximizes recovery and muscle growth.

MACRONUTRIENT TIMING

For building strength



For strength training, *when* you eat can be just as important as *what* you eat.

Proper nutrient timing **supports energy, performance, and recovery.** Not to mention, it promotes hormone balance and prevents muscle breakdown.

Fueling Window

Pre-Workout

Timeline: 1-2 hours before training

Goal: provide energy & preserve muscle

Key combo: protein, moderate carbs, & low fat

Examples:

- Oatmeal + protein powder
- Banana + peanut butter + low fat Greek yogurt
- Rice cake + almond butter + egg whites

**Avoid heavy fats or high-fiber foods too close to your session. They slow digestion.*

Post-Workout

Timeline: within one hour, or ideally within 30 minutes

Goal: Rebuild muscle & replenish glycogen

Key combo: protein (25-30g) + moderate high carbs

Examples:

- Smoothie with whey, berries & oats
- Turkey & sweet potato wrap
- Greek yogurt + granola + fruit

**This is the best window to hit your leucine threshold for muscle synthesis.*

MICRONUTRIENT SUPPORT
For Training

Bone Health



Your bones are your strength foundation. Women begin losing bone mass in their 30s, so proactive support is key. Here are some top nutrients for healthy bones:

- **Calcium:** dairy, dark leafy greens (e.g. kale, collard greens) & sardines
- **Vitamin D:** sunlight, salmon, & eggs yolks
- **Vitamin K:** eggs, hard cheeses & fermented foods
- **Magnesium:** pumpkin seeds, dark chocolate & spinach

Joint Support



Tendons, ligaments, and cartilage take a hit during strength work. Here are some nutrients that can help them stay strong and supple:

- **Vitamin C:** bell peppers, citrus & berries
- **Collagen:** helps rebuild connective tissue
- **Manganese:** oats, brown rice & mussels

NOTE: Collagen is more effective when taken with vitamin C.

Recovery



Anti-inflammatory nutrients support hormone balance, immunity, and muscle repair. Meaning, the right foods can help your muscles recover faster. Try bumping up your intake of:

- **Omega 3s:** fatty fish, flaxseed, chia seeds & walnuts
- **Antioxidants:** leafy greens, colorful veggies & spices
- **Polyphenols:** berries, dark chocolate, flaxseed & pecans

Hydration



Proper hydration supports every system in your body, including your muscles, joints, and hormones.

Daily target: 2.2-2.7 L of water (more if training, menstruating, or in hot weather)

Replenishing lost electrolytes is a must for recovery too.

- **Electrolyte rich foods:** coconut water, bone broth, citrus & sea salt
- **Supplements:** LMNT, Trace Minerals

TRAINING VS. REST DAY

Meal & snack ideas

Your body's needs vary depending on whether you're training or resting. On workout days, you need more fuel (especially carbs) to power your sessions and recover properly. On rest days, your focus shifts to repair and hormone balance.



Training Days

- Prioritize **carbohydrates** for energy and recovery
- Eat within **30-60 minutes post-workout**
- Include **protein at every meal** to support muscle repair (~25-30 g)
- Add an extra snack if hunger arises

Top picks:

✔️ Oats, sweet potatoes, rice, bananas
✔️ Lean protein: chicken, eggs, Greek yogurt
✔️ Post-workout smoothie or wrap

Rest Days



- **Lower carbohydrate** intake slightly
- Keep **protein consistent** to support muscle maintenance
- Focus on **fiber, healthy fats**, and **micronutrients**
- Don't skip meals (recovery is still active)

Top picks:

✔️ Veggies, avocado, salmon, nuts
✔️ Protein-rich breakfast (~25-30 g)
✔️ Herbal tea, lemon water, or bone broth

Meal & Snack Examples

Meal	Training Day	Rest Day
Breakfast	Oats, protein powder, and berries	Veggie scramble & avocado
Lunch	Chicken wrap, fruit, and crackers	Salmon salad w/olive oil & walnuts
Snack	Greek yogurt & banana	Hard boiled eggs & raw veggies
Dinner	Turkey, sweet potato & broccoli	Stir fry with tofu, greens, and tahini

CYCLE SYNC NUTRITION TIPS

Fuel yourself right

Hormones such as estrogen and progesterone undergo major shifts in your 30s and 40s. Nutrition can help buffer these changes, improving energy, recovery, mood, and metabolic balance.

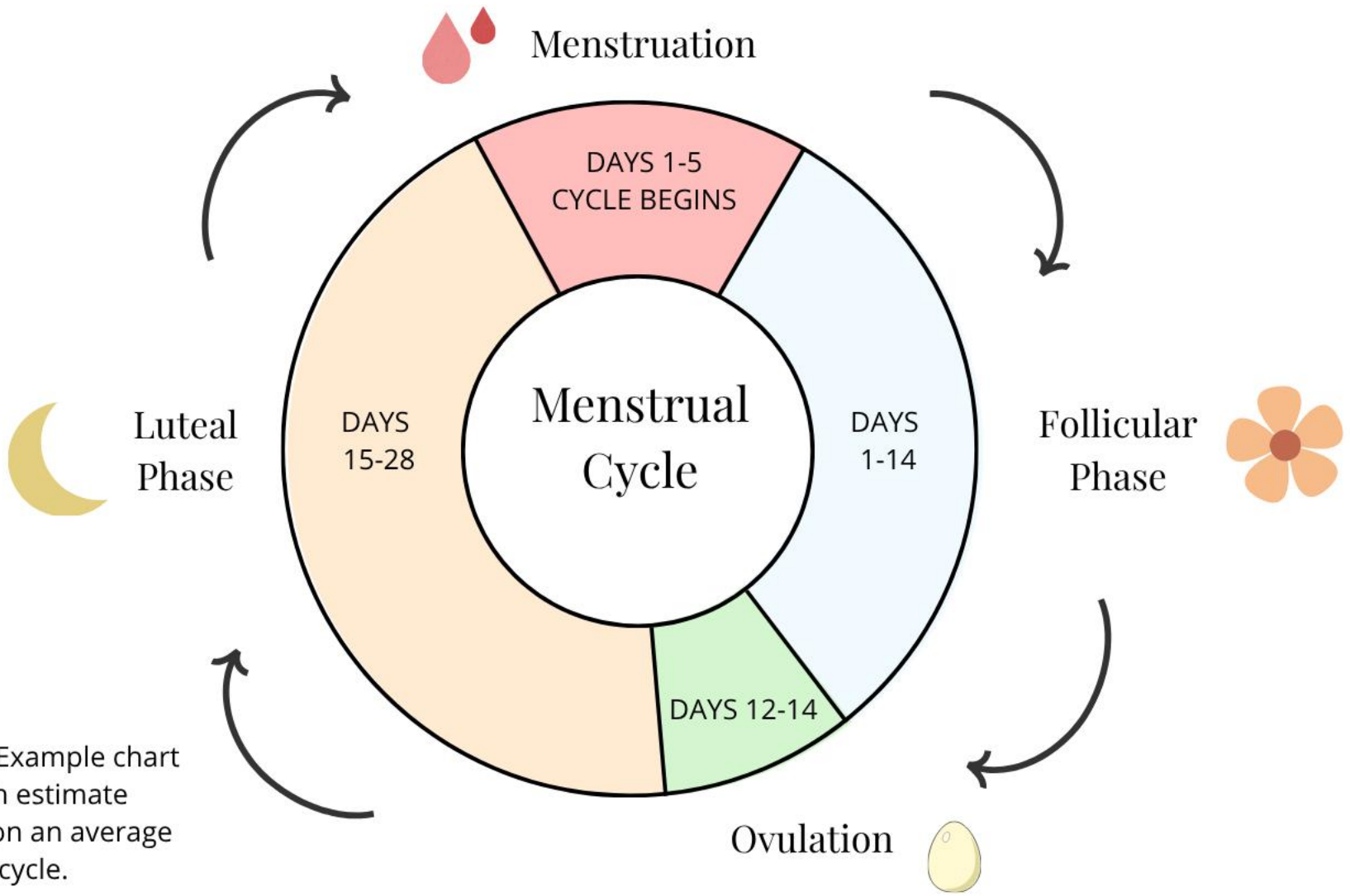
Cycle Aware Nutrition Tips

Follicular phase (Day 1-14)

- Focus on lean protein and complex carbs
- Include phytoestrogen-rich foods like flax, tofu, and tempeh for gentle estrogen support
- Prioritize iron-rich foods during menstruation, like beef & poultry

Luteal phase (Day 15-28):

- Boost magnesium (spinach, dark chocolate & avocados)
- Add vitamin B6-rich foods, like salmon, bananas, and poultry for mood support
- Increase complex carbs slightly to reduce cravings and support progesterone



NOTE: Example chart is rough estimate based on an average 28-day cycle.

STRESS & INFLAMMATION SUPPORT

To support recovery

Strength isn't just about training hard, it's about recovering well. Stress and low-grade inflammation can block progress, slow recovery, and disrupt hormone balance. Luckily, what you put on your plate can help.

Inflammation Fighting Foods

Inflammation is your body's natural healing response. But when it sticks around for too long, it can interfere with strength gains, hormone health, and recovery.

Focus on anti-inflammatory nutrients like:

- **Omega 3s**: salmon, sardines, flax & chia seeds
- **Antioxidants:** citrus, leafy greens & spices
- **Polyphenols:** berries, dark chocolate & green tea
- **Prebiotic fiber:** oats, beans, garlic & asparagus

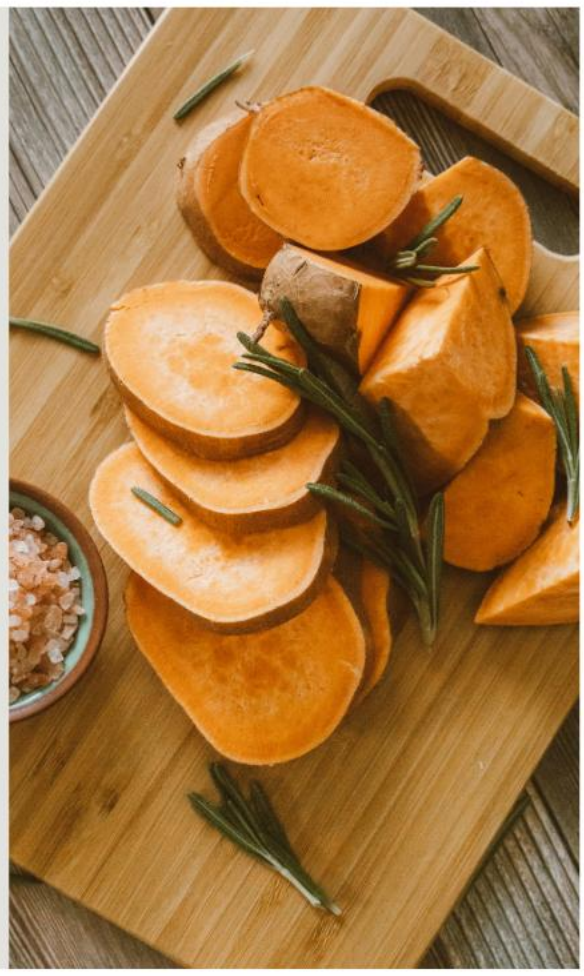


Lowering Cortisol Through Food

Cortisol is your body's main stress hormone. It's not "bad," but too much for too long can lead to fatigue, muscle breakdown, and excess belly fat.

To keep cortisol in check:

- Eat balanced meals **every 3-4 hours**
- Avoid fasting on training days
- Prioritize **slow-digesting carbs** (e.g., sweet potatoes, lentils, oats)
- Include **vitamin C** (bell peppers, berries, citrus) and magnesium (pumpkin seeds, spinach)
- **Limit caffeine**, especially on an empty stomach
- Add calming adaptogens like ashwagandha (optional)



COMMON NUTRITION MISTAKES

And how to fix them

Mistake #1: Under-fueling carbs

The fix: Add complex carbs like oats, fruit, and lentils to every meal, especially on training days.



Mistake #2: Skipping recovery meals

The fix: Try a simple protein + carb combo within 60 min of training, like a smoothie, wrap, or yogurt & fruit. It helps reduce soreness and supports muscle repair.



Mistake #3: Over-relying on supplements

The fix: Whole foods should come first. Protein powders, bars, and pills can help, but they don't replace the nutrients in real foods like eggs, salmon, or legumes.



Mistake #4: Not planning ahead

The fix: Keep backup snacks in your gym bag or purse, like trail mix, jerky, or single-serve nut butter packs. A little prep makes consistency way easier.



Mistake #5: Ignoring hydration

The fix: Set a hydration goal (e.g., 2.5L/day) and include electrolytes if you're sweating a lot or eating low carb. Even mild dehydration can zap strength and focus.



QUICK PREP IDEAS

for meals & snacks

STRENGTH MEALS



Greek yogurt bowl w/berries, nuts & granola



Egg & veggie scramble w/avocado toast



Tuna salad w/crackers & sliced veggies



Protein smoothie w/whey, spinach, nut butter & fruit



Rotisserie chicken wrap w/hummus & greens



Cottage cheese bowl w/quinoa & roasted veggies

PORTABLE SNACKS



Jerky or meat sticks (e.g. Chomps or Epic)



Hardboiled eggs & fruit



Greek yogurt cup & pumpkin seeds



Cottage cheese cup & fruit



Nut butter packets & apple slices



Protein shake & banana

SUPPLEMENT CONSIDERATIONS

Build your day

While nutrition should always come first, supplements can be helpful. When used strategically, they can fill nutritional gaps and support recovery, especially for women in their 30s and 40s. Here are three to consider:

Creatine

Creatine is the most studied supplements for strength and recovery. It helps improve training performance and may support brain health in women, particularly as estrogen declines.

Suggested use: 3-5 grams daily, with or after a meal (no loading needed)



Collagen

Collagen may support joint, tendon, and connective tissue health, especially when taken with vitamin C. It's a popular option for women over 30 who strength train regularly.

Suggested use: ~10 grams daily, ideally 30-60 minutes before training



Omega-3s

Omega-3 fatty acids help reduce inflammation, support hormone balance, and may enhance recovery. And most people don't get enough through food alone.

Suggested use: 1-2 g combined EPA/DHA per day, with a meal



NOTE: Always check with your healthcare provider before starting any new supplements.