

A close-up photograph of two avocado toasts on a dark plate. Each toast is topped with a sunny-side-up fried egg, garnished with green herbs and red spices. Three white daisies with yellow centers are arranged on the left side of the plate. A silver fork is partially visible on the right edge. The background is dark and slightly blurred.

Operationalizing Low Carbohydrate Diets: Meal Planning, Recipes, and Meeting Patient Needs

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Overview

01

Review the foundational steps of meal planning on a low-carbohydrate diet

02

Apply meal planning strategies across various meals and snacks

03

Learn how to individualize meal plans to meet cultural and dietary preferences

04

Tailor recommendations to meet various patient needs



The Michigan Collaborative for **TYPE 2 DIABETES**



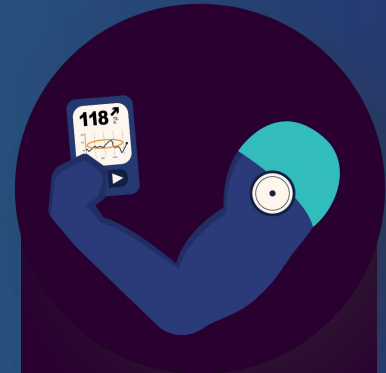
MCT2D Quality Improvement Goals



Prescribing of
GLP1 Receptor
Agonists & SGLT2
inhibitors



Supporting Lower
Carbohydrate Diets



Expanding use of
Continuous Glucose
Monitoring (CGM)

Focus for Today



Implement the principles of low-carb meal plans in practice and tailor recommendations to meet patient needs

Reviewing The Step Process

P₃

L₁

A₁

N₁

Variations Of The Low-Carbohydrate Meal Plan

Very Low Carbohydrate (Keto) Diet	Low Carbohydrate Diet	Moderate Carbohydrate Diet	High Carbohydrate Diet
<ul style="list-style-type: none">• $\leq 10\%$• 20-50g carbs/day	<ul style="list-style-type: none">• $>10-26\%$• 50-130g carbs/day	<ul style="list-style-type: none">• 26-45%• 130-225g carbs/day	<ul style="list-style-type: none">• $>45\%$• $>225\text{g carbs/day}$

Based on 2000 kcal/day

A Well-Formulated Low-Carbohydrate Meal Plan



Low Carbohydrate Foods

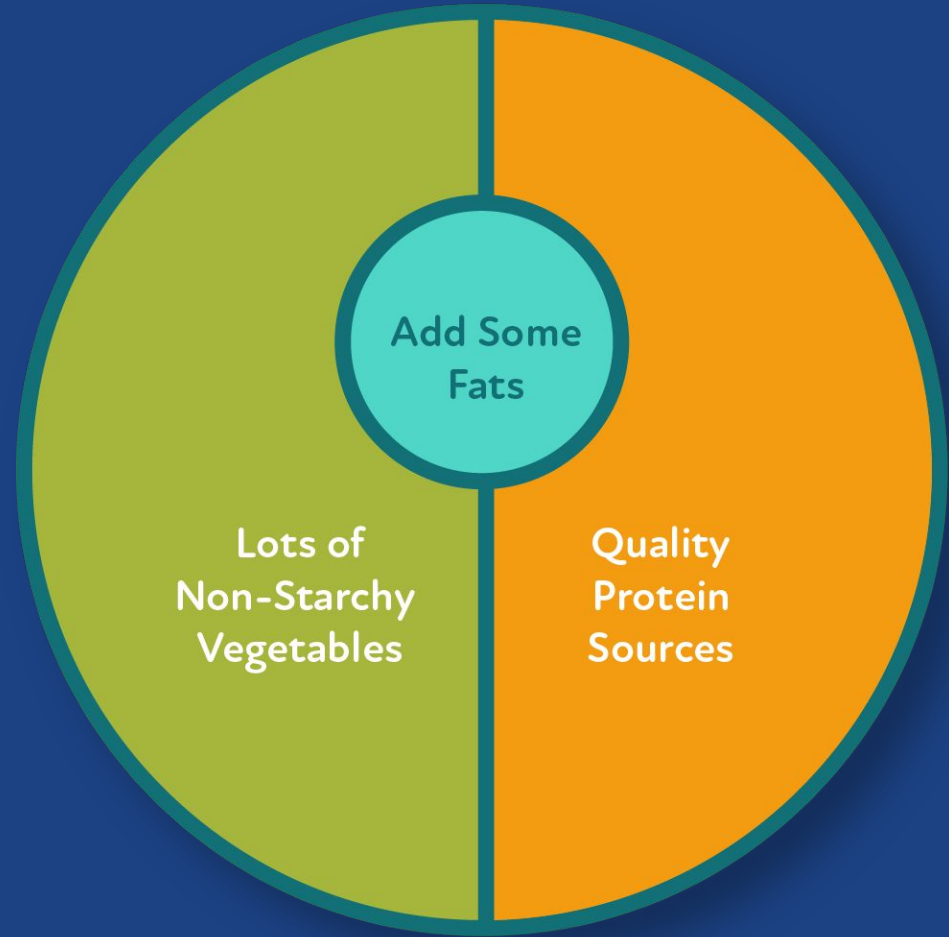


High Carbohydrate Foods

The Step Process

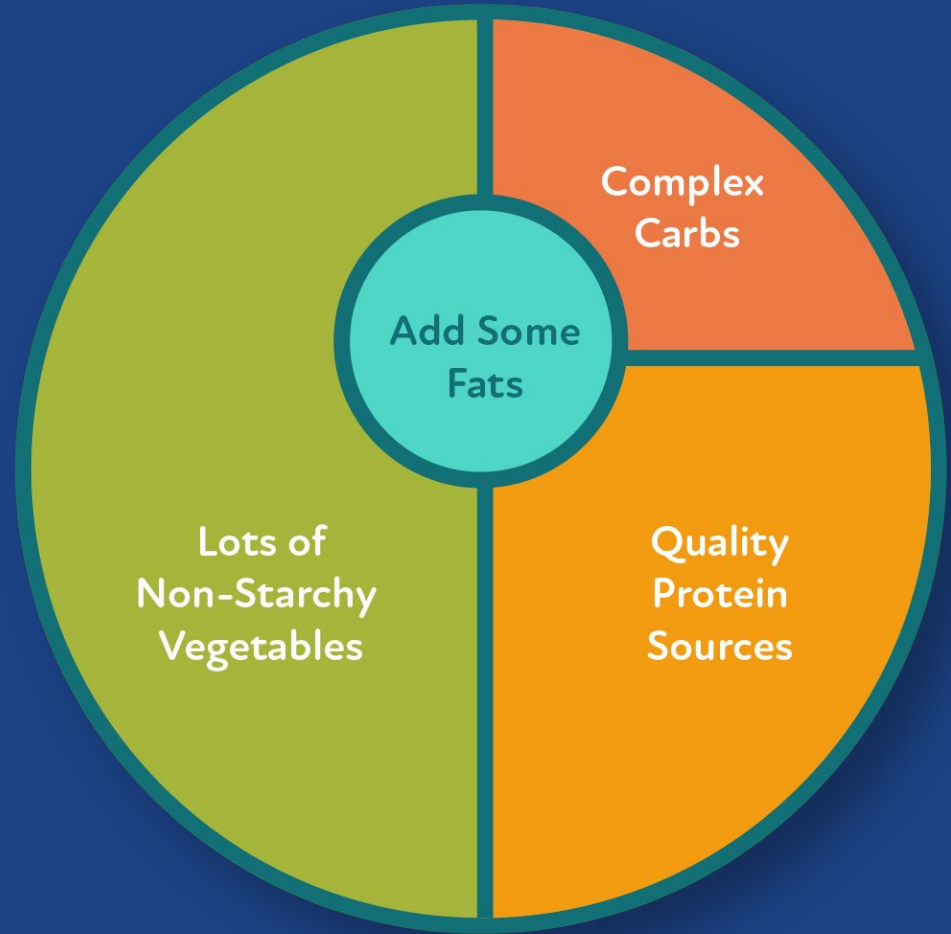
(3 step)

- Very low-carbohydrate meal plan
 - **<50g total carbohydrates/day**
- 1) Pick a protein source
 - 2) Add non-starchy vegetables
 - 3) Add some fats



The Step Process (4 step)

- Low carbohydrate meal plans
- **50-130g total carbohydrates/day**
 - 1) Pick a protein
 - 2) Add non-starchy vegetables
 - 3) Add some fats
 - 4) Add some complex carbs



The 5 P's to Avoid

- 1) Pasta
- 2) Pastries
- 3) Potatoes
- 4) Pop
- 5) Pain (Bread in French!)



Language Matters

“What strategies have you used in the past? What worked well for you? What didn’t?”

“What are your biggest health goals?”

“If you had the opportunity, how would you be managing your diabetes differently?”

“What do you know about the low-carbohydrate meal plan?”

“On a scale of 1-10, how likely are you to...”

Helpful Attitudes

- Curiosity
- Partnership
- Acceptance
- Evocative

Let's Apply Into Practice

Objective: Establish a collaborative working relationship with your patient/patient

- 1) Patient background
 - a) Assess interest and experience
 - b) Assess patient goals
 - c) Assess patient understanding/knowledge
- 2) Share intro resources
 - a) Intro to low carb lifestyle ([link here](#))
 - b) Overview of Macronutrients ([link here](#))



A vibrant assortment of fresh vegetables is displayed on a light-colored surface. The collection includes several cucumbers, a head of cauliflower, a bunch of green beans, several bright red and orange tomatoes, a bunch of carrots, and several green bell peppers. The vegetables are arranged in a dense, overlapping pile, creating a rich texture and color palette. The background is dark, which makes the colors of the produce stand out. A white horizontal line is drawn across the middle of the image, just below the text.

Meal Planning Strategies

Delicious Ways to Enjoy Low-Carb Meals



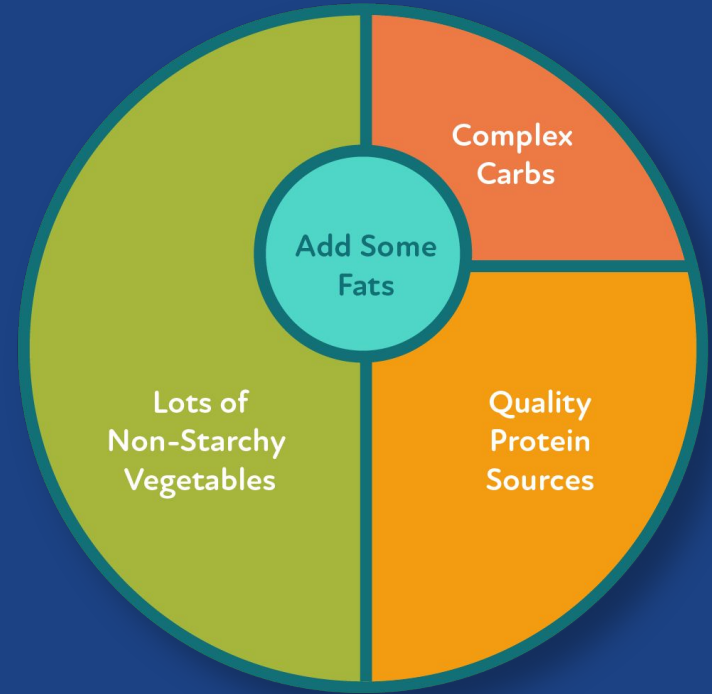
What's For Breakfast? → The *Basics*

Keep it simple: *protein is key*

Start with what you know

Make ahead or quick grab-and-go options

Eggs: versatile and packed with nutrients



What's For Breakfast? → *Sample Meals*

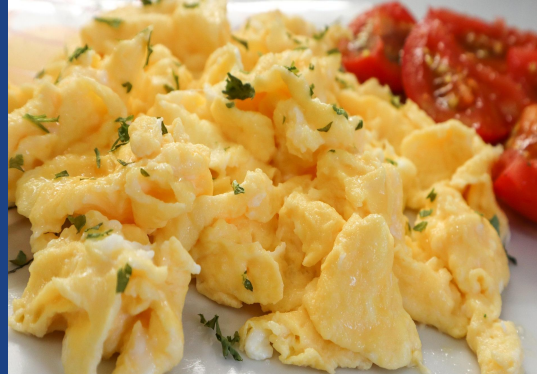
Eggs any style

Avocado and egg boats

Plain Greek yogurt with berries

Chia seed pudding with berries

Shakes and smoothies



What's For Breakfast? → *Resources*



Breakfast
**Jill's cheese-
crusted keto
omelet**

5g of carbs \$\$\$ <30 mins



Breakfast
**Yogurt swirl with
instant jam**

13g of carbs \$\$ <30 mins



Breakfast
**3-ingredient egg
cups**

2g of carbs \$ <30 mins

[Healthy Eating Jumpstart Recipes](#)

What's For Lunch? → The *Basics*

Busy schedules can lead to skipping meals

Do what works for you → Make ahead or batch cook if possible

Low-carb snacks may be an option

Ready-made shakes or low-carb frozen meals can be considered

What's For Lunch? → *Sample Meals*

'Everything but the kitchen sink'
salads

Soups and stews

Leafy green wraps or lettuce cups

Protein + veg combos

Crustless quiche



What's For Lunch? → *Resources*

Download this one pager for low-carb snack ideas

https://www.dropbox.com/s/mxzatvkeqrijl0gl/low_carb_Snack_List_Jumpstart.pdf?dl=0

LOW CARB SNACK IDEAS

Try some of these delicious snack options

As you make your grocery list, consider adding some tasty low carbohydrate snacks from the list below!

- Boiled eggs**
- String cheese or 1-1.5oz cheese (2 dice-sized cubes)**
- Chicken/tuna/egg salad, served with vegetable slices like cucumbers, bell peppers, celery**



What's For Lunch? → Resources

[Ordering Low-Carb at Fast Food Restaurants | Healthy Eating Jumpstart \(mct2d.org\)](#)

JUMPSTART BLOG

Ordering Low-Carb at Fast Food Restaurants

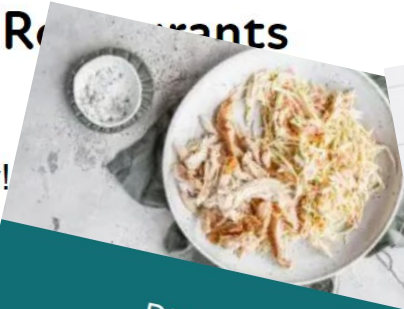
Let's start with lunch, cooking a...
homemade... okay!
Have...
tra...
we...
si...
re...
Fast food burger...
can be a good place to try a...
Simply remove the bun before... ask the staff
to leave it out. Some restaurants like Five Guys will
even wrap your burgers or hot dogs in lettuce or



Lunch
"Cold" Pizza
11.5g of carbs \$\$ <30 mins



Main Course
Low carb Italian fish stew
11g of carbs \$\$ >30 mins



Dinner
Keto rotisserie chicken with ranch coleslaw
5g of carbs \$\$ <30 mins



Salad
Keto Cobb salad with ranch dressing
6g of carbs \$\$\$ >30 mins

What's For Dinner? → The *Basics*

Replace high-carb foods with non-starchy vegetables



Zucchini squash



Cauliflower



Kohlrabi

Slow-cookers/tray bakes/one-pan meals can be used to prepare food in batches

What's For Dinner → *Sample Meals*

Fajita night → Make it a salad bowl or cauliflower rice bowl

Hamburger night → Bunless burgers or 'portobello' buns

Pizza night → Crust made from cauliflower or almond flour

Soup night → Replace potatoes with radish/turnip/kohlrabi/jicama

Pasta night → Enjoy with spaghetti squash, hearts of palm noodles, shirataki noodles, or spiralized veg

What's For Dinner → Sample *Desserts*

You can enjoy desserts on a low-carb meal plan too!

Whipped cream and berries

Quick and easy cheesecake
(microwavable)

Dark chocolate mousse (secret
ingredient: avocado/silken tofu)

Sugar free jello

Dark chocolate



Sample Meal Plan

(Low Carb 50-130g)

SUNDAY

Breakfast

3 egg omelet with ½ cup diced vegetables (peppers, onion, mushroom, tomatoes), and 1oz shredded cheese

1 slice whole wheat bread or 1 cup mixed berries

Total carbs: 20-25g

Lunch

Wrap sandwich (8 inch low carb wrap, 4-5oz turkey, cheese, spinach, tomato, and onion). Add mustard, pickles, mayo, and seasoning as desired

Optional: add 1oz nuts for crunch or avocado

Total carbs: 25-30g

Dinner

2 cups spaghetti squash* topped with ½ cup low carb tomato sauce, 4-5oz ground beef, and 1 cup sautéed non-starchy vegetables

Optional: add grated Parmesan

**Note: Can also use high-protein, low carbohydrate pasta*

Total carbs: 40g



TUESDAY

Breakfast

Baked avocado cups (cut avocado in half, add 1 egg to center of each half, then bake at 425 degrees for 15-20 min)

1 piece of fruit (1 small apple, plum, kiwi, 1 cup cantaloupe, 1 cup berries)

Total carbs: 30g

Lunch

Lettuce wraps (2-3 large lettuce leaves topped with 4-5 oz turkey or chicken, 2 tbsp hummus, diced tomato, onion, and 1oz pumpkin seeds)

Total carbs: 20g

Dinner

2 cups lentil soup (brown lentils, onions, garlic, diced carrots, zucchini, celery, mushrooms)

Chia pudding (mix 1 tbsp chia seeds, ½ cup coconut cream, and a dash of stevia. Let sit overnight)

You can make these in batches!

Total carbs: 43g



MONDAY

Breakfast

¾ cup plain Greek yogurt topped with 1oz mixed nuts, 1 cup berries or 1 piece fruit (1 small apple, plum, kiwi, 1 cup cantaloupe)

Total carbs: 25g

Lunch

2-3 cups mixed greens topped with 4-5oz tuna or other canned fish, ½ cup chickpeas, diced cucumber, tomato, onion, pickles, olives, avocado, and feta or shredded cheese

Serve with 2 tbsp ranch dressing or lemon and olive oil vinaigrette

Total carbs: 25g

Dinner

Chicken Alfredo (whole grain fettuccine with 4-5oz chicken grilled, ½ cup Alfredo sauce, and 2oz (dried) whole grain fettuccine)

Serve with side salad (dressing full-fat or olive oil and vinegar)

Total carbs: 50g



WEDNESDAY

Breakfast

Farmer's breakfast made with 2 slices bacon or other breakfast meats

1-2 eggs, cooked in any style

½ cup sautéed spinach or other greens

1 slice whole grain toast

Total carbs: 20g

Lunch

Burrito bowl made with 1 cup cauliflower rice, 4-5oz taco meat, 1 cup sautéed vegetables, ½ cup black beans, 2 tbsp salsa, and 1 tbsp sour cream

1 small fruit

Total carbs: 42g

Dinner

4-5oz Grilled/baked fish

2 cups baked/grilled non-starchy vegetables sprinkled with 1oz mixed nuts

½ cup sautéed corn or 1 small baked sweet potato

Optional: add 1 tbsp sour cream or butter

Total carbs: 32g



Sample Meal Plan

(Very-Low Carb <50g)

SATURDAY

Breakfast

Egg bites (whisk together 2-3 eggs, with chopped onion, peppers, tomato, spinach, mushrooms, herbs and spices, 1-2 oz cheese of choice. Pour mixture into muffin tin and bake at 350 degrees for 15-20 min or until set)

Total carbs: 5g

Lunch

1 cup tuna salad/chicken salad/egg salad
Serve over 2 cups of mixed leafy greens or make into a wrap or sandwich using low carbohydrate bread.

Optional: 1 oz cheese or nuts

Total carbs: 10g (26g with wrap)

Dinner

4-5 oz steak
Roasted brussel sprouts with crushed bacon
1 cup mashed cauliflower with garlic and parsley

Total carbs: 15g



SUNDAY

Breakfast

3 egg omelet with ½ cup diced vegetables (peppers, onion, mushroom, tomatoes), and 1oz shredded cheese
½ cup sliced strawberries

Total carbs: 10g

Lunch

Wrap sandwich (8 inch low carb wrap, 4-5oz turkey, cheese, spinach, tomato, and onion). Add mustard, pickles, mayo, and seasoning as desired

Total carbs: 25g

Dinner

2 cups zucchini noodles topped with ½ cup low carbohydrate tomato sauce, 4-5oz ground beef, and 1 cup sauteed non-starchy vegetables

Optional: add grated Parmesan

Total carbs: 15g



TUESDAY

Breakfast

¾ cup plain Greek yogurt topped with 1 oz chopped almonds, ½ cup mixed berries

Total carbs: 18g

Lunch

Lettuce wraps (2-3 large lettuce leaves topped with 4-5oz ground turkey or chicken, diced tomato, and ½ diced avocado, ¼ cup shredded cheese, 2 tbsp ranch dressing)

Total carbs: 10g

Dinner

Meatloaf made with sugar-free BBQ glaze, 1 cup sauteed green beans, 1 cup cauliflower mash

Total carbs: 18g



WEDNESDAY

Breakfast

Farmer's breakfast made with 2 slices bacon or other breakfast meats
2 eggs, cooked in any style
½-1 cup spinach or other greens sauteed with garlic
½ cup berries

Total carbs: 12g

Lunch

Burrito bowl made with 1.5 cups cauliflower rice, 4-5 oz taco meat, 1 cup sauteed vegetables, 2 tbsp salsa, 1 tbsp sour cream, 1 tbsp guacamole

Total carbs: 17g

Dinner

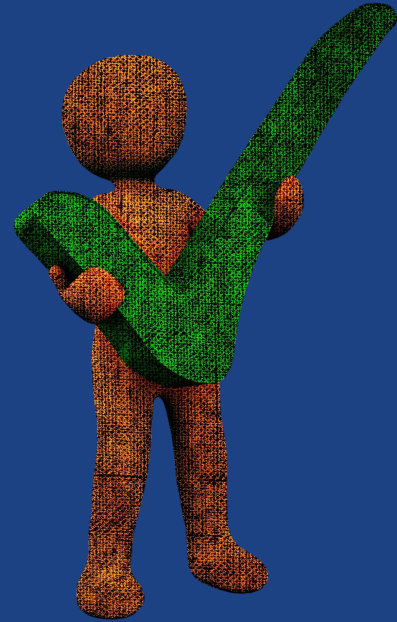
4-5 oz grilled fish
2 cups sauteed non-starchy vegetables sprinkled with 1 oz walnuts

Total carbs: 10g



Let's Apply Into Practice

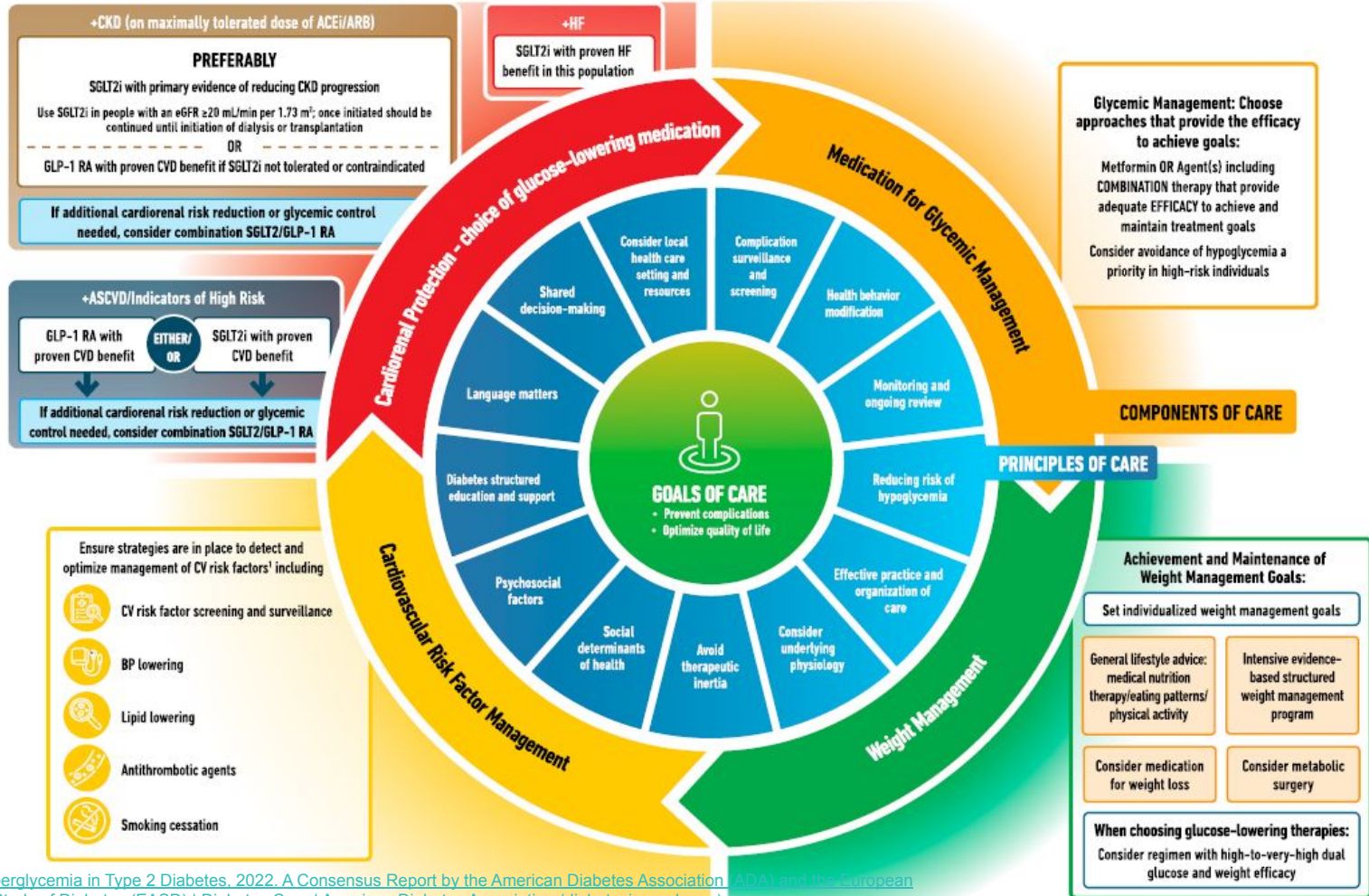
- 1) Set carb goal with patient/client
- 2) Adjust medications as needed prior to starting a low carb meal plan
- 3) Carb tracking tools ([link to resource](#))
- 4) Recipes ([link to Jumpstart recipe archive](#)) ([link to Diet Doctor](#))
- 5) Sample meal plans ([50-130g](#)) ([<50g](#))





Individualization of Meal Plans

HOLISTIC PERSON-CENTERED APPROACH TO T2DM MANAGEMENT



Tailoring Recommendations to Meet Cultural Diversity

Adapting to various food landscapes and preferences including:

- Southern cuisine
- Cuisine influenced by Latin America
- Cuisine influenced by South Asia
- Cuisine influenced by the Middle East
- Cuisine influenced by East/Southeast Asia

#53 Low carb in African-American communities

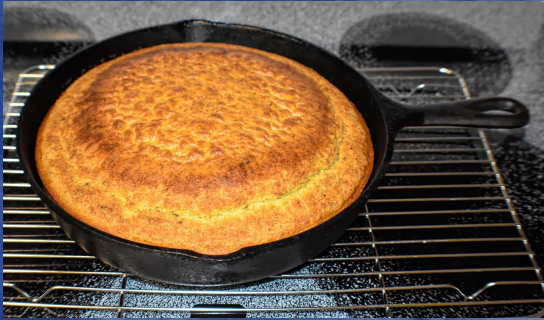
Tony Hampton, MD



Diet Doctor Podcast
with Dr. Bret Scher



Southern Cuisine



Cornbread

Alternative can be...

Almond flour
[Low Carb Keto Cornbread Recipe | Wholesome Yum](#)



Mac and Cheese

Alternative can be...

Cauliflower
[Cauliflower Mac and Cheese \(6 Ingredients!\) - Wholesome Yum](#)

Southern Cuisine



Sweet BBQ Sauce

Alternative can be...

- Dry spice rubs/marinades
- Sugar-free BBQ sauce



Potato Side dish

Alternative can be...

- Kohlrabi
- Radish
- Jicama
- Turnip
- Cauliflower

Southern Cuisine



COLLARD GREENS



HAM HOCK AND GREENS



OKRA STEW

GREEN BEANS



SWEET POTATO



PINTO BEANS



Cuisine Influenced by Latin America



Arroz Rojo

Alternative can be...

Cauliflower rice + some beans

Swap rice with sauteed vegetables



Tortillas

Alternative can be...

Alternative to tortillas:
[Low Carb Tortillas - Easy Mexican Recipe - Diet Doctor](#)

Make it a bowl

Cuisine Influenced by Latin America



Masa Harina

Alternative can be...

Alternative to Masa Harina:
Almond flour + psyllium husk
[Low-Carb Keto Tamales
Recipe - Castle in the
Mountains](#)



Mole Sauce

Alternative can be...

Mole sauce is generally
low-carb!
Serving suggestion: side
salad, cooked vegetables of
choice

Cuisine Influenced by Latin America



POZOLE

HUEVOS RANCHEROS



PICO DE GALLO

CEVICHE



CALABACITA

CHURRASCO



Cuisine Influenced by The Middle East



Maklouba

Can be made with...

Cauliflower rice



Dolma/Waraq Enab

Can be made with...

Cauliflower rice

Ground meat and spice blend

Cuisine Influenced by The Middle East



Kibbeh

Can be made with...

Almond flour + Egg
(In place of bulgur wheat)



Hummus/Baba
Ganoush

Can be made with...

- Tahina
- Chickpeas
- Garlic
- Eggplant

Cuisine Influenced by The Middle East



SHAWARMA



SHAKSHUKA



KEBAB

BAMIYA



TABBOULEH



MOLOKHIA



Cuisine Influenced by South Asia



Biryani

Can be made with...

Cauliflower rice



Aloo Gobi

Can be made with...

Cauliflower
Radish/Turnip
Zucchini

Cuisine Influenced by South Asia



Dosa

Can be made with...

ALMOND FLOUR

[Keto Dosa Recipe | Almond Flour](#)
[Keto Dosa - Indian Veggie Delight](#)



Upma

Can be made with...

CAULIFLOWER RICE

[Cauliflower Upma Recipe \(Keto](#)
[Upma\) - Indian Veggie Delight](#)

Cuisine Influenced by South Asia



PALAK PANEER
CHUTNEY



EGG BHURJI
CHICKEN TANDOORI



LAUKI SABJI
ROGAN JOSH



Cuisine Influenced by East/Southeast Asia



Pad Thai/ Noodle dishes

Can be made with...

Shirataki noodles
Hearts of palm noodles



Summer Rolls

Can be made with...

Lettuce wraps
Egg wraps
Jicama wraps

Cuisine Influenced by East/Southeast Asia



Nasi Lemak

Can be made with...

Cauliflower rice



Dumplings

Can be made with...

Steamed cabbage leaf
dumplings/wraps

Cuisine Influenced by East/Southeast Asia



CHAWAN MUSHI



KAI LAN



SASHIMI

FISH CURRY



TOM YUM SOUP



MAPO TOFU



Low-Carb *On The Go*

1. Pair the 2 for quick snack:
 - a. Protein+Veg
 - b. Veg+Fat
 - c. Fat+Protein
2. Ready-made shakes come in handy
3. Make low-carb swaps when dining out

JUMPSTART BLOG

Tips and Tricks For Low-Carb Eating on the Road

It can be difficult to maintain a low carbohydrate lifestyle when work requires you to be on the road. Don't let that stop you from putting yourself first and maintaining the goals you've set for yourself. With a little planning, eating healthy while on the go can be managed.

1. Bring a cooler. Starting your route with a cooler pack of nutritious items will get you going on the right track. Research has shown that creating a plan and preparing ways to maintain goals promotes greater success and well-being. Keeping refrigerated items on hand such as veggies, cheese, hard-boiled eggs, plain Greek yogurt, and dressings can help you add variety to your meals and snacks.



[Tips and Tricks for Low Carb Eating On the Road | Healthy Eating Jumpstart \(mct2d.org\)](https://mct2d.org)

Low-Carb *On Various Incomes*

- Protein is often the biggest cost on a low-carb meal plan
 - Choose more affordable cuts
 - Whole cut vs. deboned/skinless
 - Pork chop, ground meat, whole chicken
 - Buy on sale when possible
 - Consider meat alternatives like tofu
 - Consider canned varieties of fish as well as fresh
 - Get creative with eggs

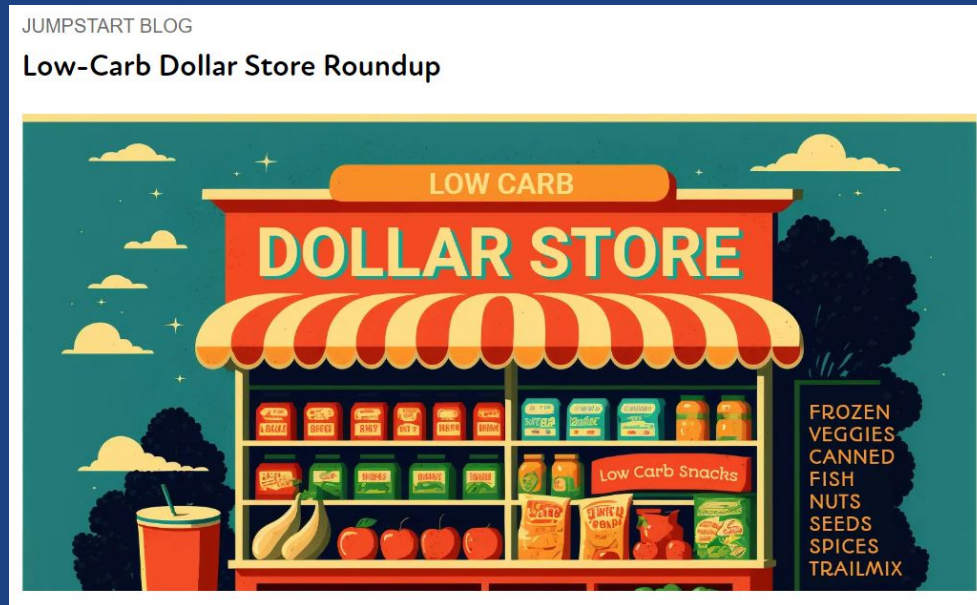
Low-Carb *On Various Incomes*

- Shop in bulk and on sale
- Use food storage techniques
 - Batch cooking + freezing
 - Preserving fresh produce
- Join memberships for discounts
- Choose water as the main beverage
 - Saves on cost
 - Eliminates potential source of added sugars
- Reduce frequency of dining out



Low-Carb *On Various Incomes*

- Helpful Dollar Store finds
 - Frozen produce
 - Spices
 - Canned goods
 - Dried goods
 - Nuts and seeds



[Low-Carb Dollar Store Roundup | Healthy Eating Jumpstart \(mct2d.org\)](https://mct2d.org/low-carb-dollar-store-roundup)

Let's Apply Into Practice

- 1) Low carb tips for eating on the road ([link here](#))
- 2) Low carb shopping on a budget ([link here](#))
- 3) Low carb dollar store round up ([link here](#))
- 4) Sample meal plans (more versions to come)





Final Thoughts

Implementing a low carbohydrate lifestyle is an iterative process. It requires trialing, refining, and adapting based on each individual case.

1-1 Consultations Available!

- 15-min appointments to discuss anything related to nutrition or low-carb meal plans
- Specific case reviews or general questions are welcome!
- Spots available for April and May
- Use the link below to book an appointment

[MCT2D - Schedule A Consultation](#)



THANK YOU

Thank you!

Questions?

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