# SMHP Grand Rounds Module 4 CME Questionnaire

We bundle 6 Grand Rounds talks at a time for CME Purposes. There are around 5 questions to answer per talk in order to show that you watched the talk and the Q&A, so random questions from the Q&A will be added in as well. We will add in the questions for each talk before it kicks off so you can fill them in as that talk occurs and then you can save them off to keep a record for yourself. Once all 6 talks have been completed, we will provide a link for a Google form for you to fill out for all 6 talks and submit it to request a CME certificate.

Talk 1

The role of insulin resistance in chronic disease

Ben Bikman, PhD

1. Inflammation is a primary cause of insulin resistance: True/False
2. TZDs are anti-diabetic drugs that work by increasing adipocyte hypertrophy: True/False
3. Hyperinsulinemia is part of insulin resistance: True/False
4. C-peptide is a marker of insulin production: True/False
5. When an adipocyte becomes insulin resistant, plasma free fatty acids will be lower than normal: True/False

Talk 2

Why and when Low Carb fails and practical solutions

Gurpreet Padda, MD MBA

1. Pre-emptive strategies for success with Low Carbohydrate diet implementation include evaluating the patient for potential sabotage from external factors as well as sabotage from internal factors.
2. Expectations management and tolerance to weight loss variability, with expected occasional failure, is clinically acceptable.
3. Harm reduction concepts for addiction management apply to weight loss.
4. Supplementing with electrolytes is often necessary to prevent cardiovascular and neurologic symptoms in patients.
5. From Q&A: What is one of the reasons Dr Padda advocates for eliminating industrial seed oils from the diet.

Talk 3

The Burnout Pandemic: Selfcare IS Healthcare - A Case Study

Hassina Kajee, MD

1. Burnout only occurs in people with pre-existing mental disorder such as depression and anxiety. True/False
2. The chronic stress which leads to clinical burnout is a source of systemic inflammation True/False
3. Exercise is a way to reduce the negative effects of chronic stress. True/False
4. Only female healthcare workers suffer burnout. True/False
5. Sleep deficiency impairs circadian clock genes which modulate endothelial function towards a prothrombotic state. True/False
6. From Q&A: Why did doctors in South Africa petition the government to ban alcohol during the Covid pandemic?

Talk 4

The revolution in our understanding of carbohydrates and exercise performance

Prof. Timothy Noakes

1. The Cross Over point popularized by Professor George Brooks holds that fat oxidation falls to zero when the exercise intensity exceeds 85%VO2max. T/F
2. A study by Prins et al. published in 2022 measured rates of fat oxidation in excess of 0.6g/min in athletes habituated to the LCHF diet when they exercised at >85%VO2max? T/F
3. Dr O. Boje concluded in 1935 that hypoglycaemia impairs exercise performance by directly limiting rates of carbohydrate oxidation by the exercising skeletal muscles. T/F.
4. In the original studies of the effects of pre-exercise carbohydrate loading, the authors diligently excluded hypoglycaemia as a potential confounder before they drew their conclusions. T/F
5. Eating a high-fat diet raises the Resting Respiratory Exchange Ratio (RER). T/F.
6. Muscle glycogen becomes an obligatory metabolic fuel during exercise at >85%VO2max. T/F
7. Dr George Cahill argues that one of the most important rules of human metabolism is “to maintain (blood) glucose levels within very narrow limits, returning the level rapidly to the norm if perturbed in either direction”. T/F.
8. A reasonable hypothesis is that muscle store glucose as glycogen to assist in the homeostatic regulation of the blood glucose concentration. T/F.
9. From the Q&A: It seems that some people are more genetically insulin resistant than others. Is it possible for everyone to reverse their insulin resistance?

Talk 5

Photo biomodulation, Metabolic Inflammation, Melatonin

Dr, Gurpreet Padda

1. The Majority of Melatonin produced in humans is utilized primarily for circadian sleep regulation (T/F)
2. Ultraviolet Light las a longer wave length than Infra Red Light and therefore penetrates deeper into human tissue (T/F)
3. Amniotic Fluid transmits infrared light to the developing foetus, improving the production of ATP in the mitochondria? (T/F)
4. From Q&A: What does Dr. Padda suggest you do to increase Melatonin production if you are unable to get sufficient sunlight exposure?

Talk 6

Avoid The Hype: Supplements/Modalities That Reduce Metabolic Inflammation

Dr, Gurpreet Padda

1. Berberine reduce insulin resistance, which leads to decreased blood glucose levels. (T/F)
2. Berberine stimulates glycolysis, or the breakdown of glucose for energy, while inhibiting gluconeogenesis, which is the process of creating new glucose molecules. (T/F)
3. Berberine inhibits adipogenesis in the liver, which is the process by which new fat cells are formed. (T/F)
4. Vitamin K2 resulted in 50 percent reduction of arterial calcification, 50 percent reduction of cardiovascular risk, and 25 percent reduction of all-cause mortality. (T/F)
5. From Q&A: What does Dr. Padda find is the most common symptom of histamine response?