

MCM Practice Questions: Lecture Day 3

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Lecture 9: Eicosanoids and Lipid Mediators I

1) Arachidonic Acid is a non-essential FA that is a precursor to eicosanoids. However, in the absence of what acid from the diet, Arachidonic acid becomes an essential FA?

- (A) Eicosapentaenoic acid (EPA)
- (B) Alpha-Linolenic acid (ALA)
- (C) Docosahexaenoic acid (DHA)
- (D) Linoleic acid (LA)

2) The healthy ratio of omega-6 : omega-3 FA's ranges from 1:1 - 1:4. Which of the following is not one of the benefits of maintaining this ratio?

- (A) Decreased protection from cardiovascular disease
- (B) Decreased Resolvins
- (C) Proliferation of Proinflammatory cells
- (D) Decreased Neuronal apoptosis

3) Research has indicated that there is increased thromboxane synthesis in patients afflicted with deep vein thrombosis (DVT). What class of enzymes catalyze the synthesis of these molecules from Arachidonic Acid?

- (A) Lipoxigenases
- (B) Cyclooxygenases
- (C) Thrombokinasase
- (D) Thromboxxygenase

4) Which one of the following molecules is a product of the activity of lipoxygenases?

- (A) Leukotrienes
- (B) Prostaglandins
- (C) Interleukins
- (D) Thromboxanes

5) A pregnant woman starts uterine contractions. What Prostaglandin promotes this contraction?

- (A) PGI_2
- (B) PGF_{2a}
- (C) PGD_2
- (D) PGE_2

6) Aspirin irreversibly inhibits COX-1 and alters the activity of COX-2. What does COX-2 produce after alteration by aspirin?

- (A) Lipoxins
- (B) Prostaglandins
- (C) Resolvins
- (D) Thromboxanes

7) While making a paper airplane, you accidentally give yourself a paper cut, triggering an inflammatory response at the wound site. A couple of days later, the wound has healed and the inflammation has subsided. What eicosanoid plays a part in the resolution phase of the inflammatory response?

1. Leukotrienes
2. Resolvins
3. Prostaglandins
4. Prostacyclins