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ESSENTIAL PHOSPHOLIPIDS – NEW PERSPECTIVES ON THE MOA

Presentation key points

- There are currently no FDA-approved drugs for the treatment of NAFLD/MAFLD; its management consists of lifestyle modification and therapeutic intervention for the associated metabolic comorbidities
- Changes in molar ratios of PLs in the hepatic cell membrane have been linked to the development of NAFLD/MAFLD in humans
- EPLs have been shown to exert membrane stabilizing, membrane repairing and antioxidant actions that can be used to treat NAFLD/MAFLD
- Pre-clinical trials have provided insights into the MoA of EPLs that can better explain their hepatoprotective effects
- Increased hepatocyte membrane fluidity, decreased apoptosis, and increased hepatocellular transport have been observed with EPL, PPC, and PI in vitro
- EPL may improve liver function and confer hepatoprotective effects because of their MoA

MAIN TAKEAWAY

Current management of NAFLD/MAFLD consists of treating the liver disease and associated metabolic comorbidities. EPL may improve liver function and have hepatoprotective effects because of their MoAs, which include increased membrane fluidity, decreased apoptosis and increased hepatocellular transport shown in vitro

EPL, essential phospholipids; FDA, Food and Drug Administration; MAFLD, metabolic-associated fatty liver disease; MoA, mechanisms of action; NAFLD, non-alcoholic fatty liver disease; PI, phosphatidylinositol; PL, phospholipid; PPC, polyenylphosphatidylcholine.