









































UPF is an **industrially formulated edible substance** derived **from natural food or synthesized** from other organic compounds.

The resulting products are designed to be **highly** profitable, convenient, and hyperpalatable, often through food additives such as preservatives, colourings, and flavourings.

UPF is the primary cause of pandemic diet-related diseases (obesity, diabetes, malnutrition).

UPF has overtaken tabacco as the leading cause of

20

.

•

22

early death globally.



21

19





24



Van Tulleken C. Ultraprocessed people, 202 Monteiro CA et al., Public Health Nutrition, 201





A systematic review of 3'920 animal models of MASLD finds high-fat, high-

fructose diets most closely resemble human MASLD

26







PAASLD

















MASLD drugs currently in **phase III** development Semaglutide (GLP-1 agonist) Dapagliflozin (SGLT2 Inhibitor) Lanifibranor (PPAR agonists) Resmetirom (THR-beta agonists) Aramchol (SCD-1 inhibitor) Belpectin (Galectin 3 inhibitor)



38

37

What a difference 4 months of semaglutide can make			
		05/2023	09/2023
63 yo male with metabolic syndrome (T2DM, Dyslipidemia, arterial HT) and MASLD	Weight/BMI ALT (<55 U/I)	98kg/28.9 94	90kg/26.6 45
Liver biopsy 2017: F3 fibrosis, 40% steatosis, NAS score 4	AST (<55 U/l) Glucose, fasting (3.9-5.6 mmol/l) HbA1c (4.0-5.7%)	62 6.9 6.4	36 5.4 5.1
Maximum weight 105 kg (BMI 31.0) Tried hard to loose weight for 5 yrs (98 kg, BMI 28.9)	Cholesterol, total (<5.0 mmol/l) HDL cholesterol (>1.0 mmol/l) LDL cholesterol (<2.6 mmol/l)	5.2 1.3 3.3	3.4 1.2 1.9
Weight reduction 8 kg/4 months with semaglutide	Triglycerides (<1.7 mmol/l) Fibroscan (< 5kPa)	2.1	1.3
	CAP (< 275 kPa) FIB-4 Score	338	257
	NAFLD Score	-0.883	-2.054

39

Personal thoughts on GLP-1 agonists

- Approved for treatment of diabetes and obesity (Ozempic, Rybelsus)
- Efficient weight loss (i.e. 15%) and improved metabolic parameters (i.e. HbA1c)
- Seems to curb cravings for alcohol and reduces intake (i.e. NCT05895643)
- Increasing number of patients with cirrhosis (diagnosed and undiagnosed) are being prescribed GLP-1 agonists i.e. for diabetes
- Weight loss is not attributed solely to fat mass but also to lean body mass and skeletal muscle (LBM reduction 20%-50% of total weight lost)*
- Given the importance of skeletal muscle especially patients with cirrhosis malnutrition, and sarcopenia have to be avoided (exercise & protein intake)
- Delayed gastric emptying with GLP-1 agonists (Cave anaesthesiologists & endoscopists)**
 High costs of treatment (CH 1'557.- CHF/year, USA 16'188.- USD/year)
- High costs of treatment (CH 1 557.- CHr/year, USA 10 188.- USD/year)
- Beneficial effects seem to be only transient: rebound after stopping treatment
 *sarguars IA et al, Endocrinol Metab, 2029 & Winger et al. 00
 **report et al. 0

41



40

















- Summary & Conclusions The epidemiological burden of MASLD is increasing rapidly and is related to nutrition
- A stepwise approach to the workup (FIB-4 <1.3, VCTE < 8kPa) of NAFLD allows selection of subjects for further assessment
- Recent name changes: "NAFLD" to "MASLD", "NASH" to "MASH", MetALD
- New medical therapies (currently at least 6 in phase III) are actively being developed
- Bariatric surgery is effective: resolving NASH, reducing fibrosis, improving survival
- Lifestyle interventions (physical activity, weight loss, nutrition) are effective & preventive
- Education (nutrition & physical act.) of patients, the general population & children is key
- Eat real food reduce sugar, sweetened beverages and ultra-processed food

50



51

