Ultra Processed Food Addiction

Dr Jennifer Unwin

11:15 -12:00



pure encapsulations

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Food Addiction Solutions

Ultra Processed Food Addiction

Dr Jen Unwin PsyD



THE CHC
Collaborative Health Community

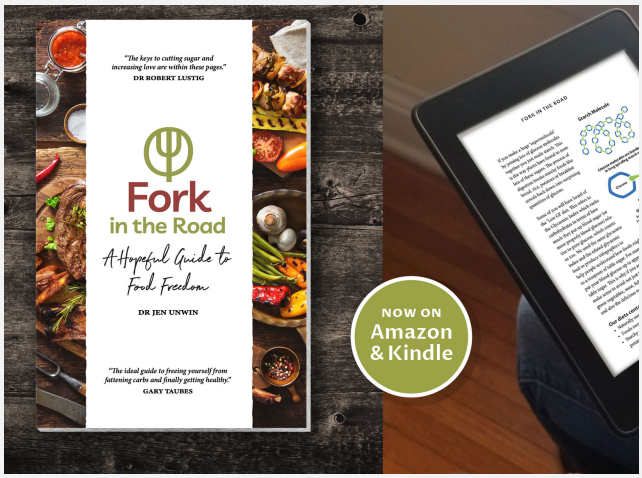
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Conflicts of interest & Affiliation

No conflicts for the purposes of this talk

Fork in the Road book profits to The CHC charity

Research lead for Food Addiction Solutions



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Summary

- ✓ What is addiction?
- ✓ Can it apply to food behaviours?
- ✓ What is the expert consensus around food addiction?
- ✓ How common is ultra processed food addiction (UPFA)?
- ✓ How can I recognise it in clinic?
- ✓ What causes UPFA?
- ✓ Results of our treatment study and other studies
- ✓ What works clinically?
- ✓ What next?

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Addiction

According to ASAM (American Society of Addiction Medicine):

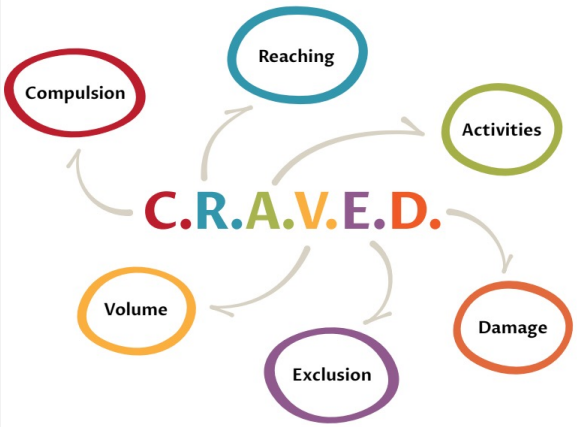
Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.

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ICD substance use disorder symptoms

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C. COMPULSION
Powerful urges to consume

R. REACHING FOR MORE
Increased tolerance and need

A. ACTIVITIES NEGLECTED
Ignoring what you once valued

V. VOLUME
Having more than you intended

E. EXCLUSION
Elimination causes withdrawal

D. DAMAGE
Despite awareness, use continues

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3 or more indicates 'pathological use'/addiction

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Era	Focus	Activity Level	Numbers
2000–2008	TheTheoretical Era	Debates on whether food "addiction" was a valid metaphor or a biological reality.	Low (<50/year)
2009–2018:	The Validation Era	Use of the YFAS to prove the concept in humans; brain imaging studies became common.	Moderate (100-350/year)
2019–Present:	The Policy Era	Focus shifted to Ultra-Processed Foods (UPFs) and how big food industry practices mirror big tobacco.	High (500+/year)

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Prevalence of Food Addiction

Praxedes et al (2022) Systematic review with meta-analysis using YFAS (DSM):

The Prevalence of FA is

14%*

in the general population.

(*Comparable to alcohol also 14%)

https://pubmed.ncbi.nlm.nih.gov/34953001/

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Prevalence of Food Addiction in clinical populations

- Praxedes et al (2022) also showed FA prevalence in
- Anorexia 55%
- Binge eating disorder 63%
- Bulimia 84%
- Obesity 30%
- Bariatric surgery patients 32%
- Normal or underweight 11%
- Gearhardt et al (2023)
- 12% in children and adolescents overall, and
- Up to 35% in overweight/obese children and adolescents

https://pubmed.ncbi.nlm.nih.gov/34953001/

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Food Addiction and Type 2 Diabetes

Food addiction is strongly associated with type 2 diabetes

Christina Horsager [a], Jens Meldgaard Bruun [b c], Emil Færk [a], Søren Hagstrøm [d e f], Marlene Briciet Lauritsen [a d], Søren Dinesen Østergaard [c g]

2023 Clinical Nutrition

Food addiction was strongly associated with T2D in the general population (adjusted odds ratio (AOR) = 6.7) and among individuals with mental disorder (AOR = 2.4) in a dose–response-like manner.

https://doi.org/10.1016/j.clnu.2023.03.014

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The harms of Ultra Processed Food

Greater exposure to ultra-processed food was *associated* with a higher risk of adverse health outcomes, especially cardiometabolic, common mental disorder, and mortality outcomes. N = 10 million!

Lane, M. M., Gamage, E., Du, S., Ashtree, D. N., McGuinness, A. J., Gauci, S., Baker, P., Lawrence, M., Rebholz, C. M., Srour, B., & O'Neil, A. (**2024**). Ultra-processed food exposure and adverse health outcomes: Umbrella review of epidemiological meta-analyses. https://www.bmj.com/content/384/bmj-2023-077310

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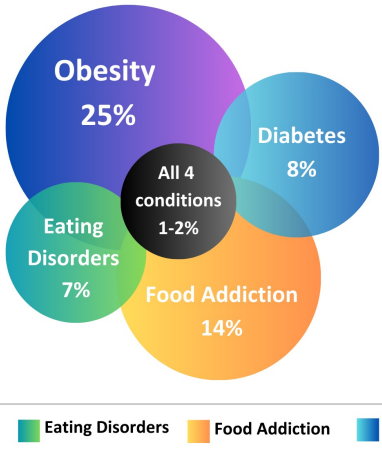
6+ million adults



Estimated number of UK adults with Food Addiction, based on the estimate of 14% prevalence from previous studies

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Population overlap of Obesity, Food Addiction, Diabetes and Eating Disorders



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In the Popular Media


DAILY EXPRESS

JK Rowling dares police to arrest her over new hate crime law

Energy giants rake in £420bn profit as millions struggle with their bills

10M JUNK FOOD ADDICTS COSTING BRITAIN BILLIONS

Boris and Carrie slope off on an Easter ski break

And the risks to our health posed by eating ultra-processed food is the subject of Tuesday's Express front page. Doctors tell the newspaper they want food addiction to be classed alongside alcohol and drug


OBESITY EPIDEMIC 'OUT OF CONTROL'

UK push to rank food addiction alongside drugs and alcohol

I WAS 20st AT SCHOOL... BUT TREATS HAVE NO PULL ANY MORE

COMMENT

DR JEN UNWIN

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Food Addiction takes many shapes

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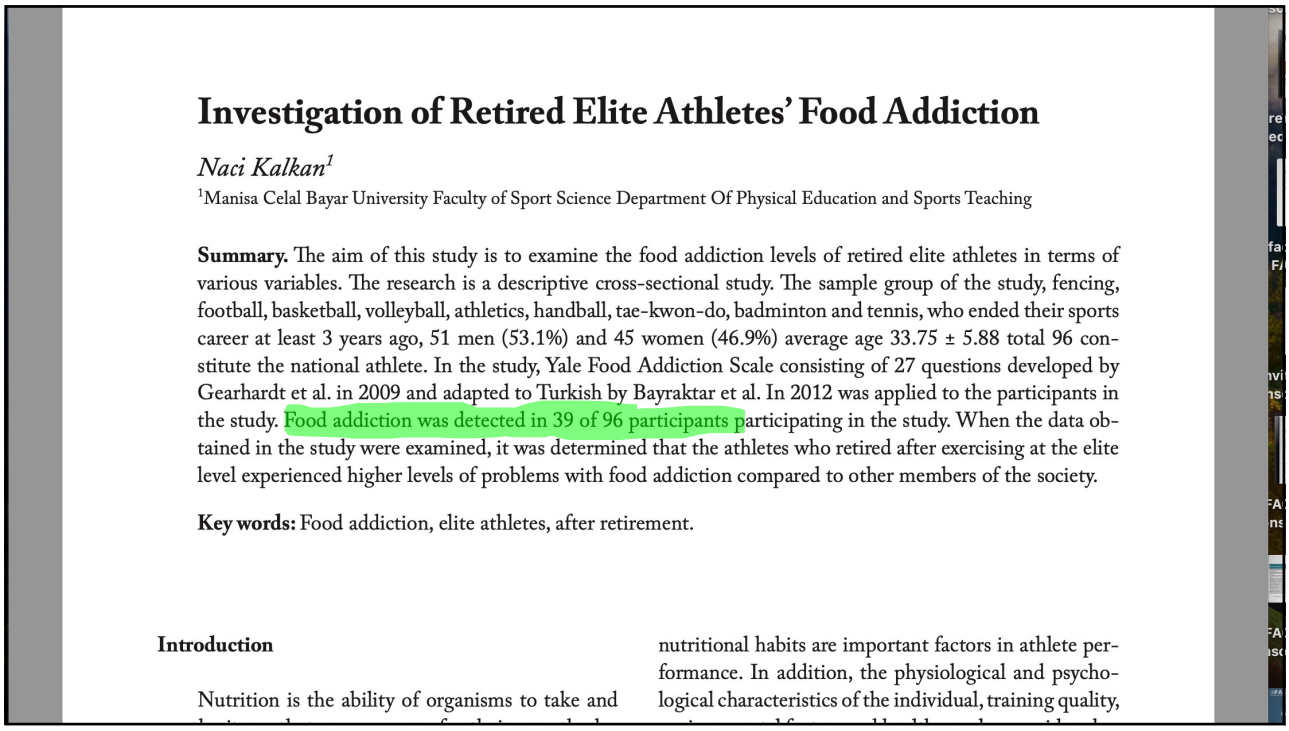




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Investigation of Retired Elite Athletes' Food Addiction

Naci Kalkan[1]

[1]Manisa Celal Bayar University Faculty of Sport Science Department Of Physical Education and Sports Teaching

Summary. The aim of this study is to examine the food addiction levels of retired elite athletes in terms of various variables. The research is a descriptive cross-sectional study. The sample group of the study, fencing, football, basketball, volleyball, athletics, handball, tae-kwon-do, badminton and tennis, who ended their sports career at least 3 years ago, 51 men (53.1%) and 45 women (46.9%) average age 33.75 ± 5.88 total 96 constitute the national athlete. In the study, Yale Food Addiction Scale consisting of 27 questions developed by Gearhardt et al. in 2009 and adapted to Turkish by Bayraktar et al. In 2012 was applied to the participants in the study. Food addiction was detected in 39 of 96 participants participating in the study. When the data obtained in the study were examined, it was determined that the athletes who retired after exercising at the elite level experienced higher levels of problems with food addiction compared to other members of the society.

Key words: Food addiction, elite athletes, after retirement.

Introduction

Nutrition is the ability of organisms to take and

nutritional habits are important factors in athlete performance. In addition, the physiological and psychological characteristics of the individual, training quality,

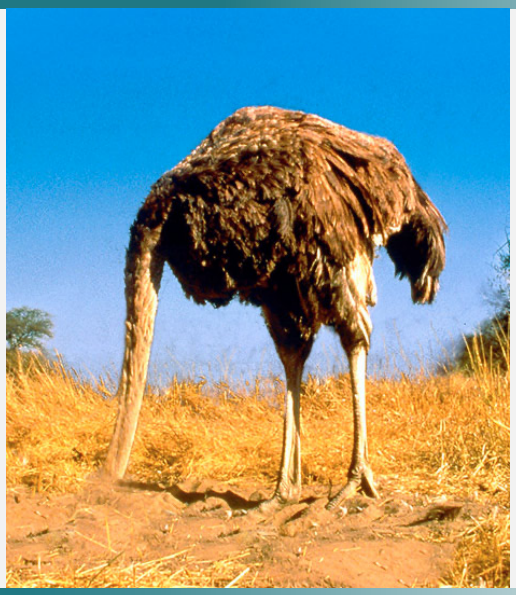
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Do we have something of a denial problem?

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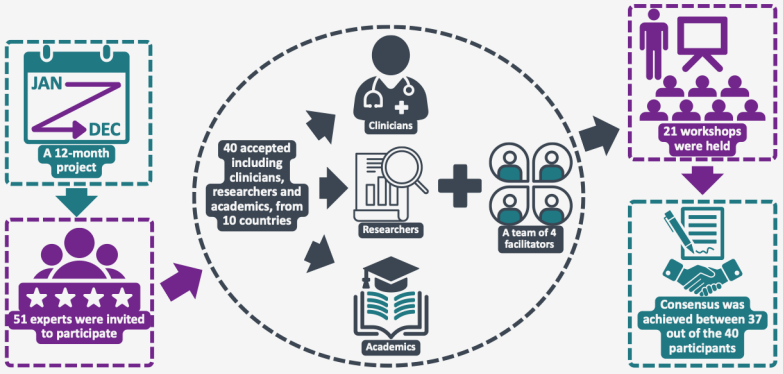


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Towards consensus: Using the Delphi Method to form an International Expert Consensus statement on Ultra-Processed Food Addiction

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The escalating global prevalence and costs of obesity and non-communicable diseases demands a paradigm shift in our understanding and treatment of problematic overeating behaviours and diseases related to diet.



Key consensus points:

- There is enough evidence to justify the classification of new substance use disorder.
- The disorder should be referred to as ultra-processed food addiction (UPFA).
- The symptoms that comprise addiction to other substances of abuse in the DSM and ICD describe UPFA symptoms.
- Given that UPFA is a substance use disorder: abstinence from a person's 'drug foods' will form the mainstay of therapy.
- FA exists on a continuum and can co-occur with eating disorders, but is a distinct disorder.
- Recognition of the disorder will lead to more research and treatment options.

Unwin, Giaever, Avena, Kennedy, Painschab & LaFata, Frontiers in Psychiatry 2025

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Screening tools for Food Addiction

1. Yale Food Addiction Scale
2. C.R.A.V.E.D.
3. Gentle enquiry

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Yale Food Addiction Scale YFAS

- Validated research screening tool
- Translated into many languages
- Used widely in research/data collection
- Based on DSM-V Criteria for disorders due to substance use
- Long Questionnaire (35 Questions)
- Shorter Modified version (m-YFAS 2.0) (13 Questions)
- Children's version also available
- Time-consuming to complete and difficult to score in clinic

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Modified Yale Food Addiction Scale –m-Y.F.A.S.

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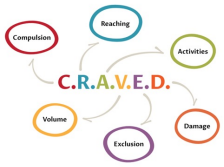
This survey asks about your eating habits in the past year. People sometimes have difficulty controlling how much they eat of certain foods such as:

- Sweets like ice cream, chocolate, doughnuts, cookies, cake, candy
- Starches like white bread, rolls, pasta, and rice
- Salty snacks like chips, pretzels, and crackers
- Fatty foods like steak, bacon, hamburgers, cheeseburgers, pizza, and French fries
- Sugary drinks like soda pop, lemonade, sports drinks, and energy drinks

When the following questions ask about "CERTAIN FOODS" please think of ANY foods or beverages similar to those listed in the food or beverage groups above or ANY OTHER foods you have had difficulty with in the past year

IN THE PAST 12 MONTHS:	Never	Less than monthly	Once a month	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every Day
1. I ate to the point where I felt physically ill	0	1	2	3	4	5	6	7
2. I spent a lot of time feeling sluggish or tired from overeating.	0	1	2	3	4	5	6	7
3. I avoided work, school or social activities because I was afraid I would overeat there.	0	1	2	3	4	5	6	7
4. If I had emotional problems because I hadn't eaten certain foods, I would eat those foods to feel better.	0	1	2	3	4	5	6	7
5. My eating behavior caused me a lot of distress.	0	1	2	3	4	5	6	7
6. I had significant problems in my life because of food and eating. These may have been problems with my daily routine, work, school, friends, family, or health.	0	1	2	3	4	5	6	7
7. My overeating got in the way of me taking care of my family or doing household chores.	0	1	2	3	4	5	6	7
8. I kept eating in the same way even though my eating caused emotional problems.	0	1	2	3	4	5	6	7
9. Eating the same amount of food did not give me as much enjoyment as it used to.	0	1	2	3	4	5	6	7
10. I had such strong urges to eat certain foods that I couldn't think of anything else.	0	1	2	3	4	5	6	7
11. I tried and failed to cut down on or stop eating certain foods.	0	1	2	3	4	5	6	7
12. I was so distracted by eating that I could have been hurt (e.g., when driving a car, crossing the street, operating machinery).	0	1	2	3	4	5	6	7
13. My friends or family were worried about how much I overate.	0	1	2	3	4	5	6	7

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Note: By returning this form to FAS, **you consent to your pseudonymised data being used** as part of a large dataset for the purpose of informing and educating clinicians, the scientific community and the public.

Unique Reference: [2 Initials/Day of Birth/Year of Birth] Date: [YYYY/MM/DD]

Have you ever CRAVED© certain foods or drinks?
This is a questionnaire to assess whether you experience cravings for foods or drinks that might make it difficult for you to sustain changes to your diet.
Spend a few minutes thinking about any foods or drinks you struggle to control your intake of. Include foods and drinks that occupy your mind. Write a list of these foods and drinks in the box:

Please answer the following questions about these foods or drinks. For each question, tick the relevant box on the right.	**YES:** In the past month	**YES:** In the past year	**YES:** More than one year ago	**NO:** Never
1. Have you ever had such a strong desire or sense of compulsion at the thought of having these foods or drinks that you could not resist the urge to consume them?				
2. Have you ever noticed that you need to use increasing amounts of these foods or drinks to get the same effect compared to when you first had them?				
3. Have you ever noticed that you neglect planning activities because you are too tired, sick or preoccupied due to having too much of these foods or drinks?				
4. Have you ever consumed more of these foods or drinks than you intended on more than one occasion?				
5. Have you ever experienced at least two of the following withdrawal symptoms when you cut down or stopped consuming these foods or drinks? • Headache • Nausea or vomiting • Anxiety • Depressed or low mood • Irritability • Shakes • Sweating • Heart Racing /Palpitations • Fast or shallow breathing • Diarrhoea or constipation • Sleep disturbance or vivid dreams				
6. Have you ever continued to consume these foods or drinks despite you or someone else believing that difficulties with weight gain, diabetes, memory, concentration, anxiety, unexplained mood swings, depression, panic attacks or other physical or mental health problems could be due to your consumption of these foods or drinks?				

Scoring: Three or more symptoms in the past year could indicate addictive behaviours related to certain foods and / or drinks.

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For more information and to use CRAVED©, or to support the development & validation of its use, please contact Heidi Glaever and Jen Unwin at: fas.admin@the-chc.org
FAS is a project within The Collaborative Health Community Foundation. Registered Charity No 1207031

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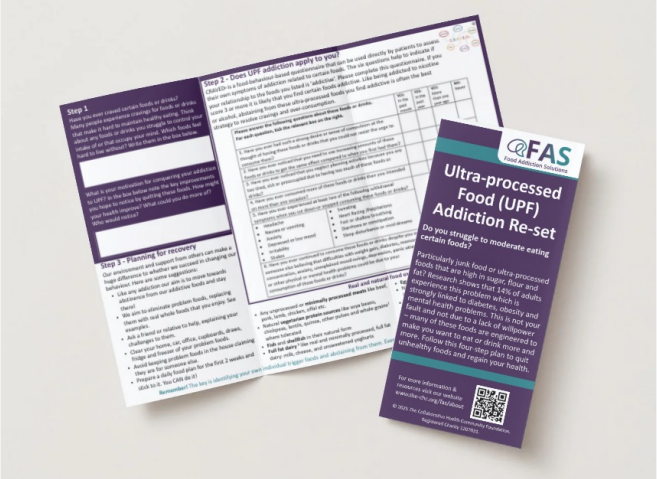
CRAVED validation accepted for publication at Frontiers in Public Health

CRAVED scores were positively associated with YFAS symptom scores ($r = 0.55$, $p < .001$) and BES scores ($r = 0.56$, $p < .001$). Higher CRAVED scores significantly predicted YFAS-defined food addiction. ROC analysis demonstrated acceptable discrimination (AUC = 0.75, 95% CI 0.64–0.85). A threshold of ≥3 showed high sensitivity for identifying YFAS-positive cases. CRAVED scores were significantly higher among participants meeting YFAS criteria and increased across binge eating severity groups. These findings provide preliminary support for CRAVED as a brief and clinically feasible screening tool for addictive-like eating behaviours.

 https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1871164/abstract

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QR code for downloadable quick start leaflet-CRAVED and advice



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Gentle Enquiry…

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When **one is too many**
and
One thousand is never enough?

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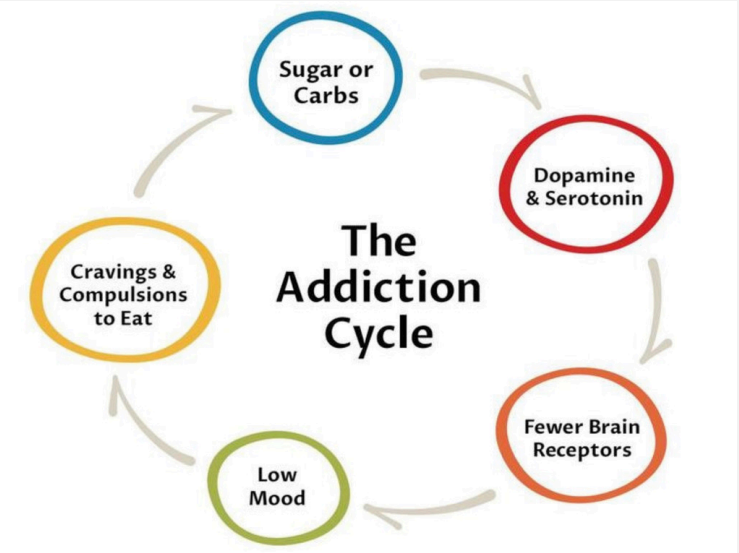
Hough, K. et al (2026). The addicted brain: How processed foods hijack reward systems.

Animal and human studies have demonstrated that excessive consumption of palatable foods can induce behaviours characteristic of addiction-bingeing, craving, tolerance, and withdrawal-accompanied by significant dopaminergic alterations within the mesolimbic reward circuitry. Neuroimaging and molecular studies further reveal that chronic overconsumption of UPFs alters dopaminergic tone, disrupts prefrontal control, and activates stress pathways, thereby reinforcing compulsive intake.

https://doi.org/10.1016/j.phrs.2026.108097

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The UPF Addiction Trap



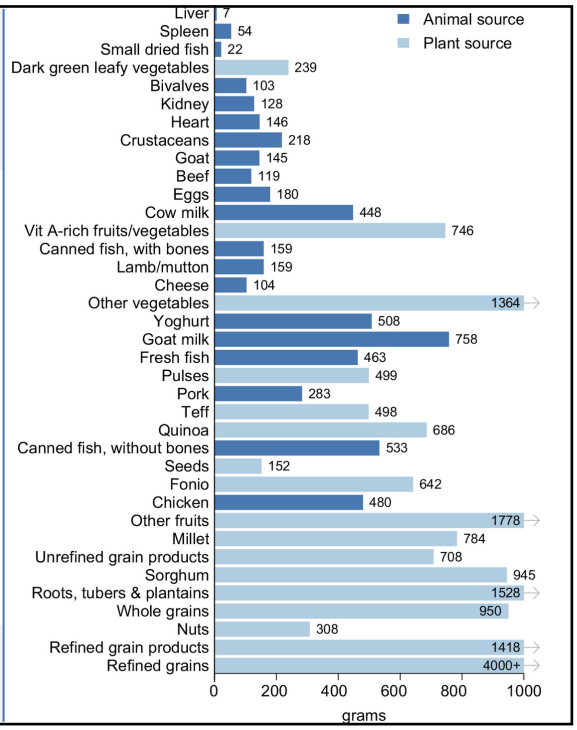
Also:
-Hyperpalatability
-Suppression of frontal lobe activity
-Neurons that fire together, wire together
-Damage to mitochondria, leading to energy deficits
-Negative reinforcement: a bad feeling state is **temporarily** relieved

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Grams of each food needed to provide an average of one-third of recommended intakes of vitamin A, folate, vitamin B12, calcium, iron, and zinc for women aged 15 to 49 y. **Feb 2025**

The consequences of eating a low nutrient density diet? Might this drive over eating and cravings?

Beal T, Manohar S, Miachon L, Fanzo J. Nutrient-dense foods and diverse diets are important for ensuring adequate nutrition across the life course. Proceedings of the National Academy of Sciences.



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Real, whole nutrient dense foods as nature intended

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EATING FOR RECOVERY - A TYPICAL DAY



Breakfast
Bacon, 2 or 3 eggs, and mushrooms or scrambled eggs with butter

Lunch
Fish (200g) with a salad or veggies and dressing
Grilled Salmon (pg 69)

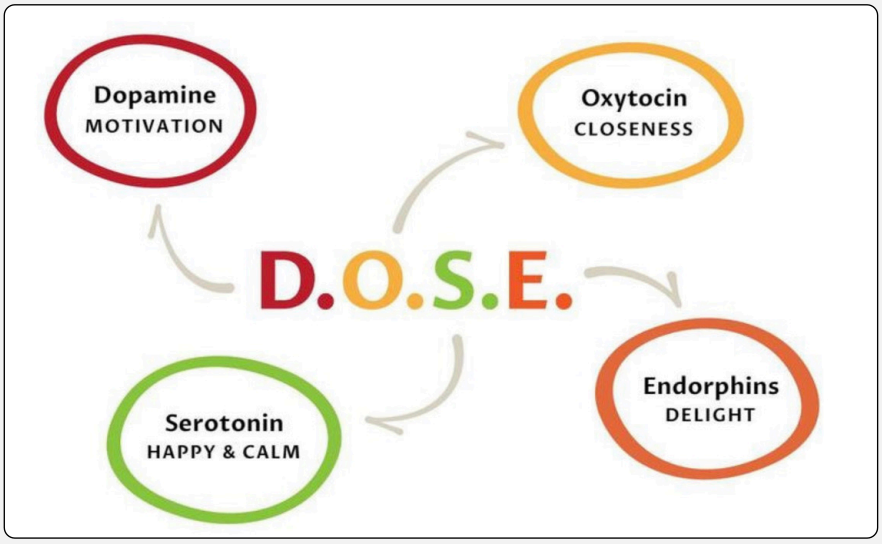
Dinner
Meat (200g) with veggies and sauce
Slow-Cook Lamb Shanks (pg 87)

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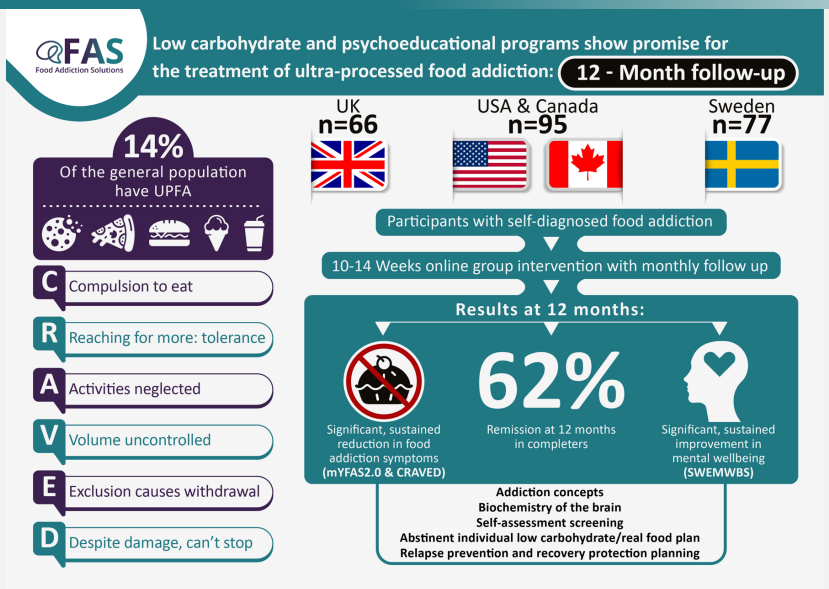
It's not ALL about food: brain repair



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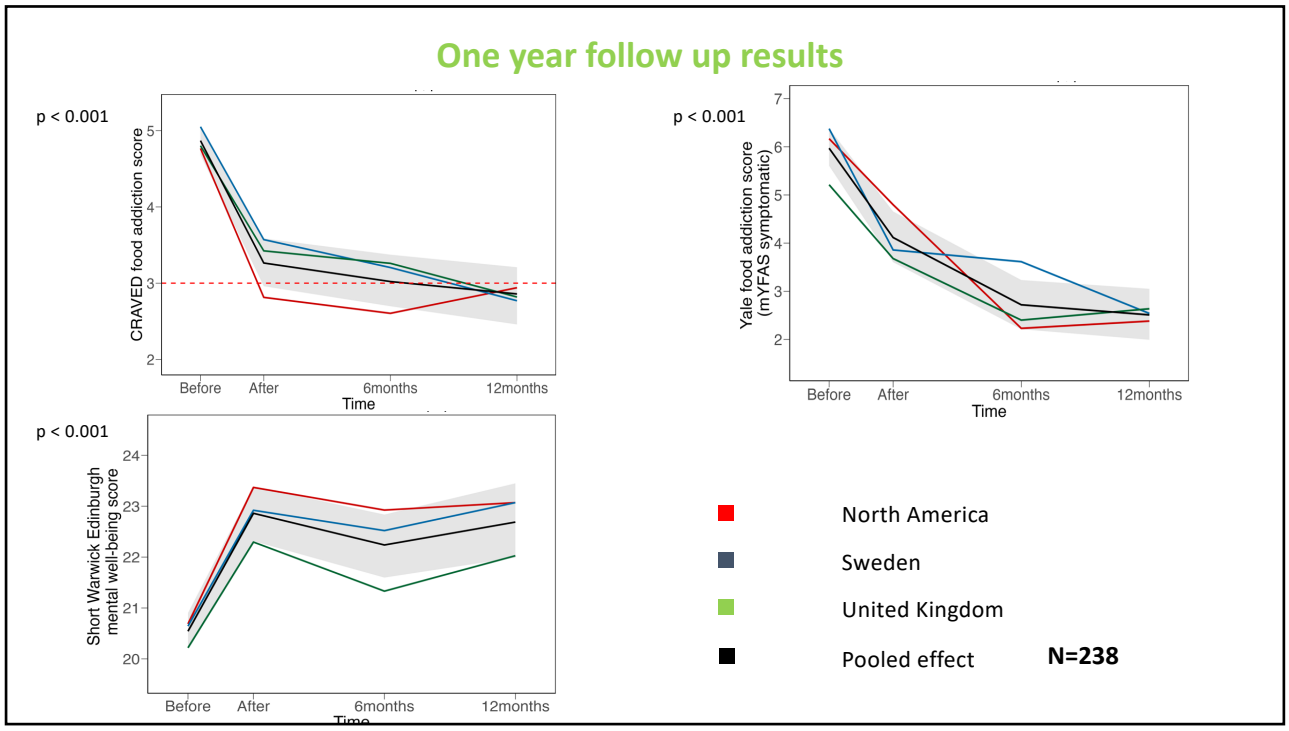
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https://www.frontiersin.org/journals/psychiatry/articles/10.3389/fpsyt.2025.1556988/full

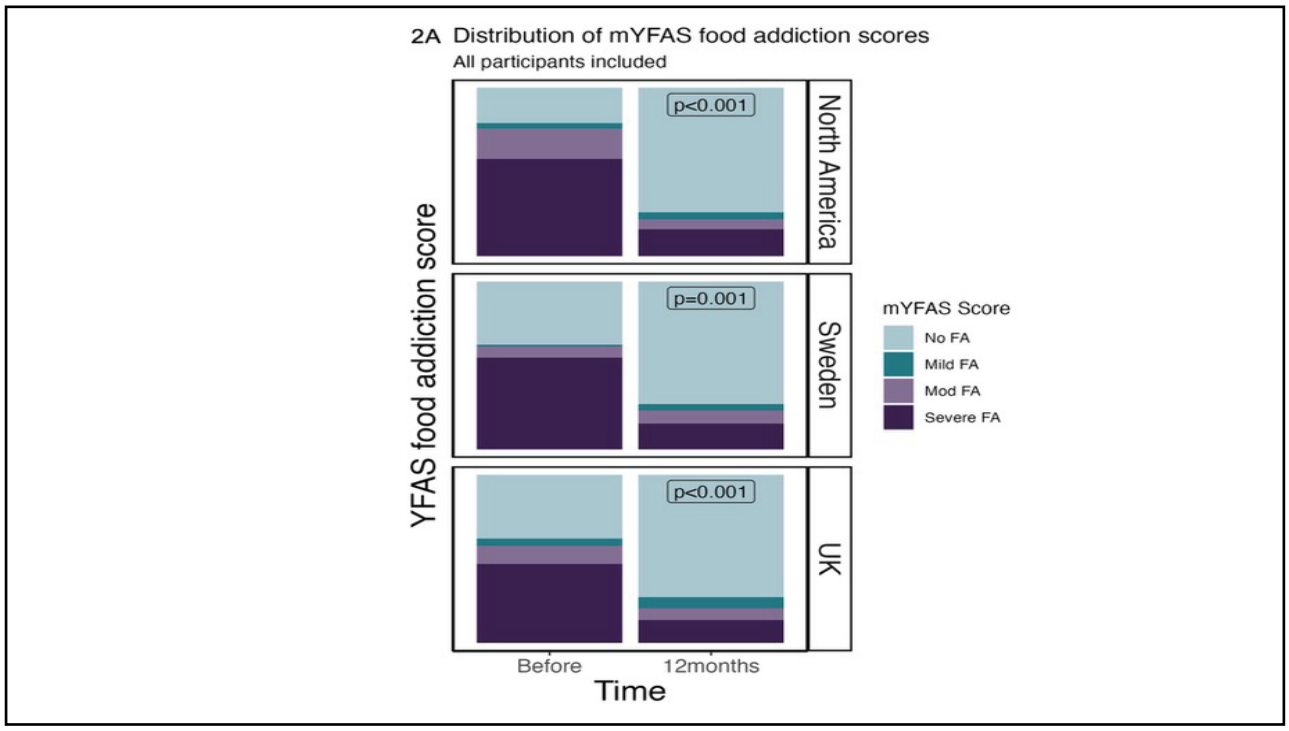


34 the-chc.org Unwin et al 2025

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One year follow up results
p < 0.001
CRAVED food addiction score
Before
After
6months
12months
Time
p < 0.001
Yale food addiction score (mYFAS symptomatic)
p < 0.001
Short Warwick Edinburgh mental well-being score
North America
Sweden
United Kingdom
Pooled effect
N=238

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2A Distribution of mYFAS food addiction scores
All participants included
p<0.001
p=0.001
p<0.001
North America
Sweden
UK
YFAS food addiction score
mYFAS Score
No FA
Mild FA
Mod FA
Severe FA
Before
12months
Time

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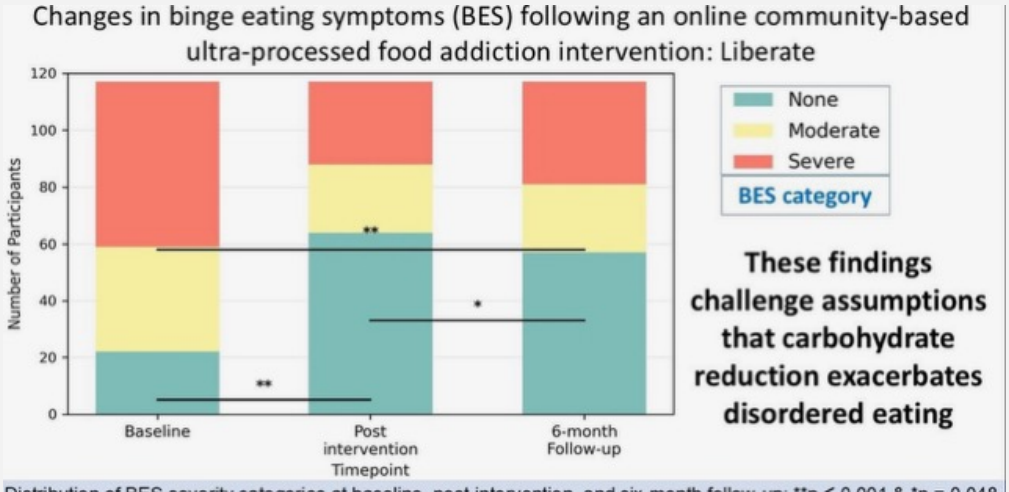
Suggestions for treatment

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- Screen using CRAVED then education:
- Working towards Abstinence from sugar, flour and processed foods
- Real food focus Adequate protein and fat. Not 'restriction'.
- No cheat days and caution with fasting (don't alternate access and restriction)
- No sweeteners (only use in transition if necessary)
- Focus isn't weight loss but stable, nutritious eating and neurotransmitter regulation and brain energy stabilisation
- Educate re the addicted brain (+stress management, other activities to replace food rewards)
- Beware alcohol, nicotine, caffeine (one disease, many outlets)
- Nuts, cheese/dairy with caution and eliminate if cravings persist
- Additional tools working well in clinic: CGMs, short-term low-dose oral GLP1s
- Ongoing peer support via online groups

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Does UPF abstinence worsen binge eating? Bennett et al 2026



Distribution of BES severity categories at baseline, post-intervention, and six-month follow-up; **p ≤ 0.001 & *p = 0.048

Bennett E, Bellamy EL, Lycett D, Unwin J, Whelan M, Wiss DA and Patel R (2026) Changes in binge eating symptoms following an online community-based ultra-processed food addiction intervention: Liberate. Front. Public Health 14:1807450. doi: 10.3389/fpubh.2026.1807450

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Accepting addiction-Karen



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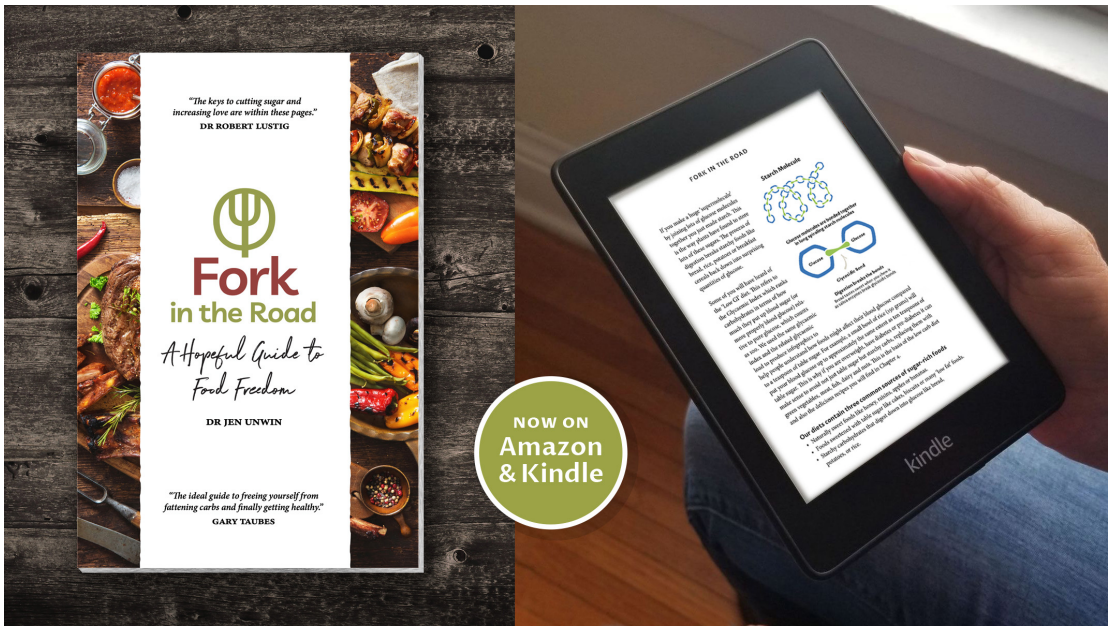
Link to the full research topic

Link to Frontiers special issue
https://www.frontiersin.org/research-topics/65607/ultra-processed-food-addiction-moving-toward-consensus-on-mechanisms-definitions-assessment-and-intervention

Follow the link for 16 papers about UPFUD & treatment

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Key Takeaways

- UPFA / UPFUD is gaining international consensus as a substance use disorder
- Consensus on mechanisms, definitions, assessment, and intervention is emerging
- Treatments are promising but require more rigorous research and follow up
- Abstaining from UPF does not worsen eating disorder symptoms
- Classification would change practice, funding availability and policy

Ultra-Processed Food Addiction: A Research Update

Erica M. LaFata[1], Kelly C. Allison[2], Janet Audrain-McGovern[3], Evan M. Forman[1,4]

https://link.springer.com/content/pdf/10.1007/s13679-024-00569-w.pdf

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