GLP-1 based therapies and Podiatric care: friend or foe in surgery, healing and holistic management

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Background

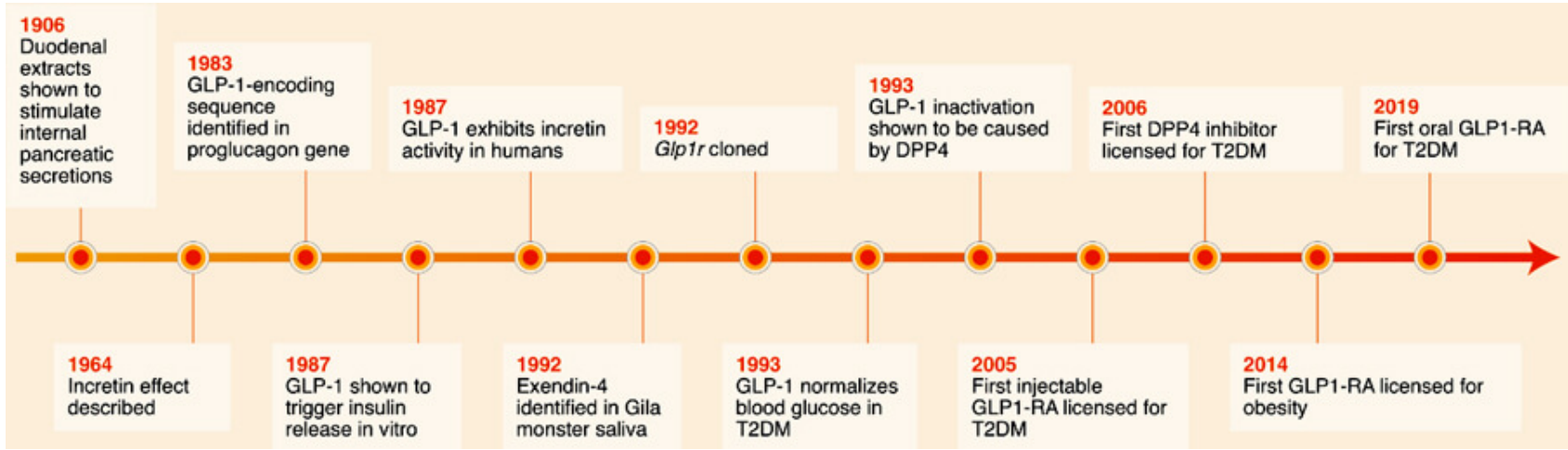
GLP-1s have become increasingly popular for management of Type 2 diabetes but more recently for weight management

Many patients are paying for treatment privately without consultation with their GP

Positive impact on supporting weight loss and improved metabolic profiles

Concerns arising about impact on nutritional status, wound healing and peri-operative management

Timeline of GLP-1 Research and Drug Development



[GLP-1R Agonists for Weight Loss | Biopharma PEG]

Table 1 | Approved GLP-1 based therapies

Drug	Target	Indication	Administration	Dose	Key trial	Year of approval
Exenatide	GLP-1R	T2D	Twice daily subcutaneously	10 µg twice daily	AMIGO	2005
Exenatide once weekly	GLP-1R	T2D	Once weekly	2 mg once weekly	EXSCEL	2012
Lixisenatide	GLP-1R	T2D	Once daily	20 µg daily	ELIXA	2016
Liraglutide	GLP-1R	T2D	Once daily	1.8 mg daily	LEADER	2010
		Obesity		3 mg daily	SCALE	2014
Dulaglutide	GLP-1R	T2D	Once weekly	4.5 mg weekly	REWIND	2014
Semaglutide	GLP-1R	T2D	Once weekly	1–2 mg weekly	SUSTAIN-6	2017
		Obesity		2.4 mg weekly	SELECT	2021
		T2D	Oral daily	14 mg daily	PIONEER-6 SOUL	2019
Tirzepatide	GLP-1R /GIPR	T2D	Once weekly	15 mg weekly	SURPASS CVOT	2025
		Obesity			SURMOUNT MMO	2027

GIPR, glucose-dependent insulinotropic polypeptide receptor; GLP-1, glucagon-like peptide 1; GLP-1R, glucagon-like peptide 1 receptor; T2D, type 2 diabetes.

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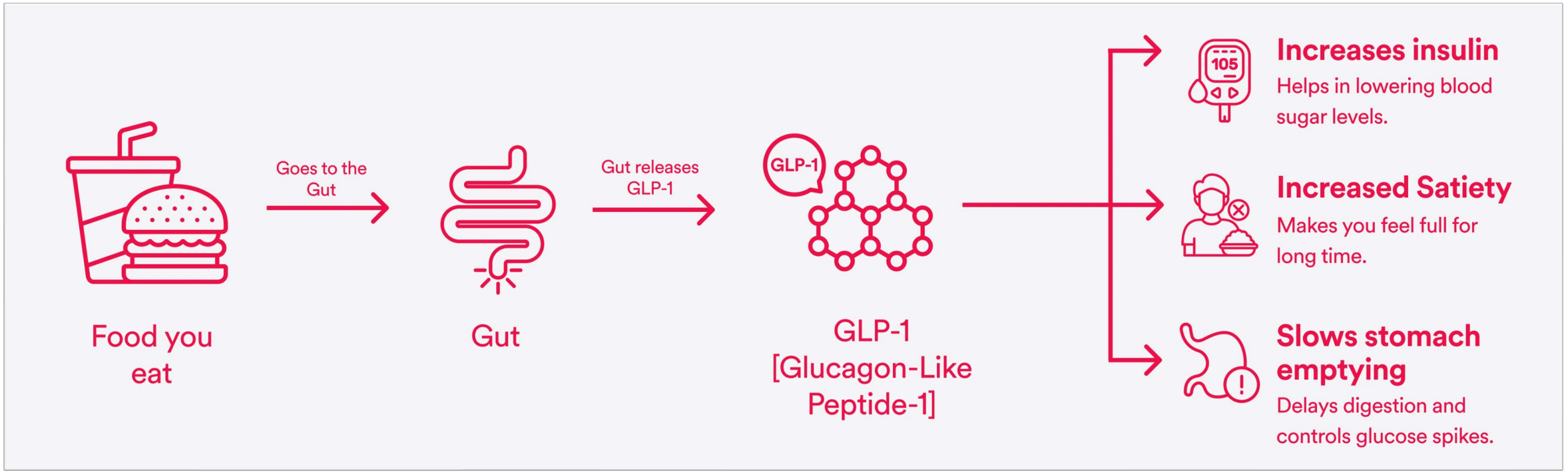


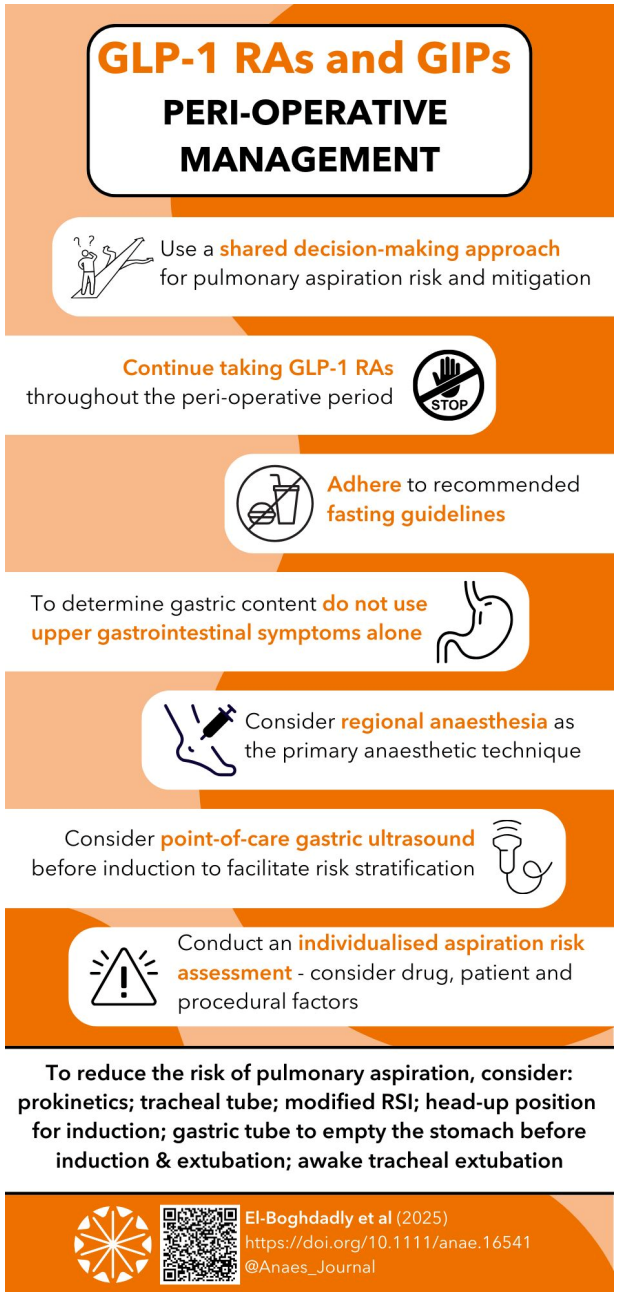
Mechanism of Action

- First described as a hormone that stimulates pancreatic insulin secretion
- Glucagon-like peptide 1 (GLP-1) is rapidly released from intestinal L cells in response to food intake
- Inhibits pancreatic glucagon secretion and delays gastric emptying
- Reduces food intake by influencing brain regions involved in feeding regulation
  - **Thus enabling weight loss**

Potential risks for Podiatric Surgery patients

- **Anaesthetic risk**
  - Increased aspiration risk due to slower gastric emptying
- **Bleeding risk**
  - Consider peri-op and post op bleeding risk secondary to nutritional deficiencies
- **Healing risk**
  - Slower bone and wound healing due to effects of malnutrition
  - Clinical studies suggest reduced risk of non-healing wounds and reduced risk of wound dehiscence

UK Guidance 2025 Pulmonary Aspiration Risk



- **Consensus Statement** – El-Boghdadly et al 2025
- **MHRA update** – Jan 2025 endorsed by Royal College of Anaesthetists
  - European Medicine Agency review 2024

USA guidance

- American Society of Anesthesiologists (ASA) 2023
  - Stop **short-acting** GLP-1s **1 day** prior to surgery
  - Stop **long-acting** GLP-1s **1 week** prior to surgery

- American Academy of Orthopaedic Surgery (AAOS) – 2025
  - Stop GLP-1s **14 days** prior to surgery
  - ⇩ Risk of aspiration, delayed emergence from anaesthesia, aspiration pneumonitis & conversion to intubation

Most recent Consensus Statement

BJA

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Special Article

CLINICAL PRACTICE

Perioperative management of patients taking glucagon-like peptide 1 receptor agonists: Society for Perioperative Assessment and Quality Improvement (SPAQI) multidisciplinary consensus statement☆

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Recommendations:

- **Continue** GLP-1s in patients **without significant GI symptoms**
- **Fasting for solids 24 hours** (only clear liquids allowed) before procedures requiring anaesthesia for patients without significant GI symptoms
- **Fasting for high carbohydrate content clear liquids** (> 10% glucose) for **8 hours** before procedures requiring anaesthesia for patients without significant GI symptoms
- **Fasting for no- or low-carbohydrate content clear liquids** (<10% glucose) for **4 hours** before procedures requiring anaesthesia for patients without significant GI symptoms
- Patients taking GLP-1s with **significant GI symptoms** be referred to their prescribing physicians **for diet and medication modifications** before proceeding with elective procedures requiring anaesthesia
- It is reasonable for inpatients to restart GLP-1s when resuming their usual diets
- It is reasonable for outpatients to restart GLP-1s when resuming their usual diets

Nutritional optimisation

Increased risk of malnutrition

- Appetite suppression by increasing satiety
- Reduced calorie intake
- Insufficient intake of essential vitamins, minerals and protein
- Reduction in muscle mass and bone density
- Increased risk of frailty and falls

GI side effects

- Vomiting and Diarrhoea
  - Dehydration

Implications for wound healing & tissue repair

- Malnutrition leading to dry skin and itching
- Poor tissue quality
- Reduced ability for wound healing and increased risk of bruising

However…

Positive findings

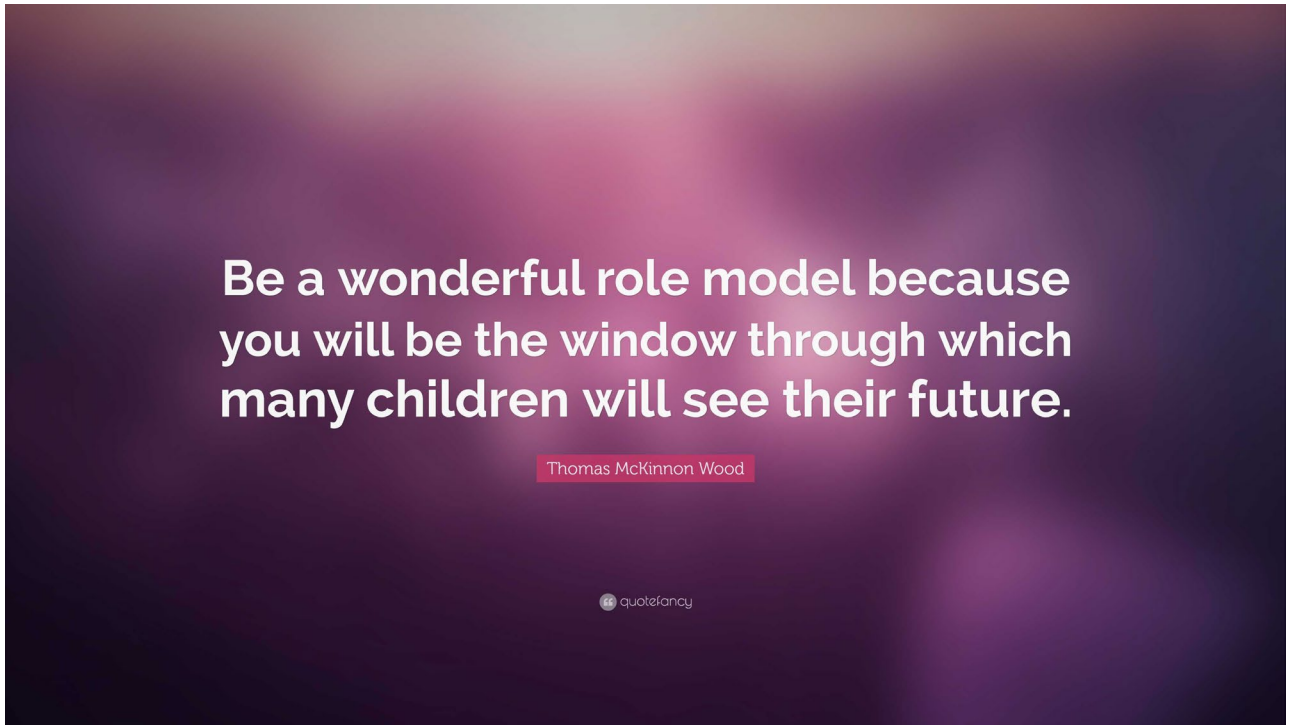
- Diabetic wounds - **accelerates healing** by reducing inflammation and creates **more conducive environment for wound healing** by reducing blood glucose levels
- Surgical wounds - **reduced wound dehiscence (0.9%)** and **haematoma (0.06%)**
- Venous ulcerations - appears to be an association between the use of GLP-1 RA and **improved healing**
- Neuroprotective properties
  - **Improved cognition**
- Cardioprotective properties
  - **Reduced Major Adverse Cardiovascular events**

Practical tips for shared care and patient optimisation

- Baseline screening
  - Key vitamins and minerals to check for deficiencies
  - Consider supplementation
- Nutritional input
  - Increase nutrient dense foods to maximise nutrition intake with lower calorie diets
- MDT working
  - Liaison with Endocrinology
  - Anaesthetic review
  - Follow local guidelines

What's next?

Thanks for listening



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