

* Endocrine :-

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Tests for ensuring DM :-

	in Normal	in Diabetic
[1] Fasting Blood test	< 100	> 126
[2] Random Blood Glucose (2 h Post Prandial)	< 140	> 200
[3] Hb A1C	< 5.7	> 6.5

Target of treatment of DM patients :-

[1] Fasting bld test < 130

[2] 2 hr PP < 180

[3] Hb A1C < 7

Hypoglycemia
in diabetic
patients $\rightarrow$
(< 70)

لـ احياناً مريض السكري عليه في خلال فترة العلاج سيأخذ من أعراض
Hypoglycemia بالذبح كونه اد : ((2 h PP ≈ 83))
((False Hypoglycemic range))

لـ لكنه في الحقيقة ما يتلوه ذوبة Hypoglycemia ، انما يتلوه جسم
مريض بقوّة على مستوى عالٍ من الـ Glucose فلا تنزل في فترة صغيرة بـ رة
فإنه المريض يبدأ بحس بالأعراض الـ Hypoglycemia

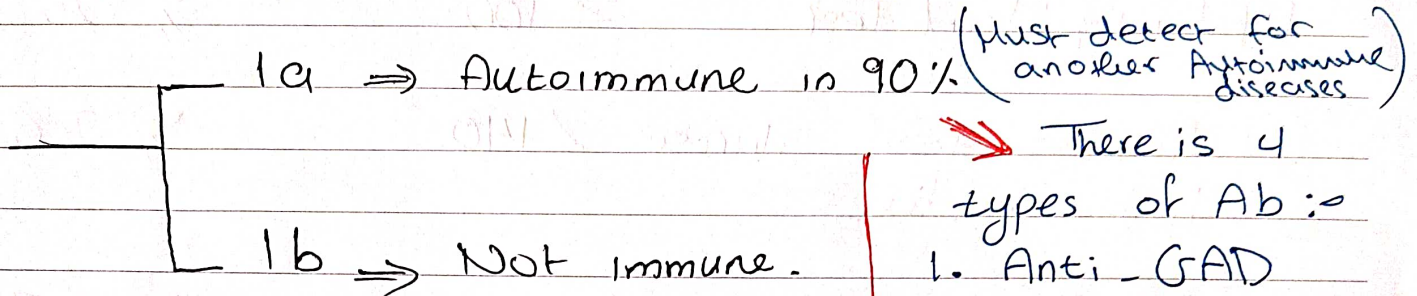
- Palpitation
- Sweating
- blurred of vision
- Dizziness
- Fatigue

لـ وبتوضيح لمريض؟؟
ما يأكل بـ رة متواظماً الجسم على معدلات
السكر الجديدة .

Type 1 DM:

(Absolute Insulin deficiency)

↳ Usually in young age + Strong associated with Ftt.



→ May There is no family history of T₁ DM.

→ There is 4 types of Ab:

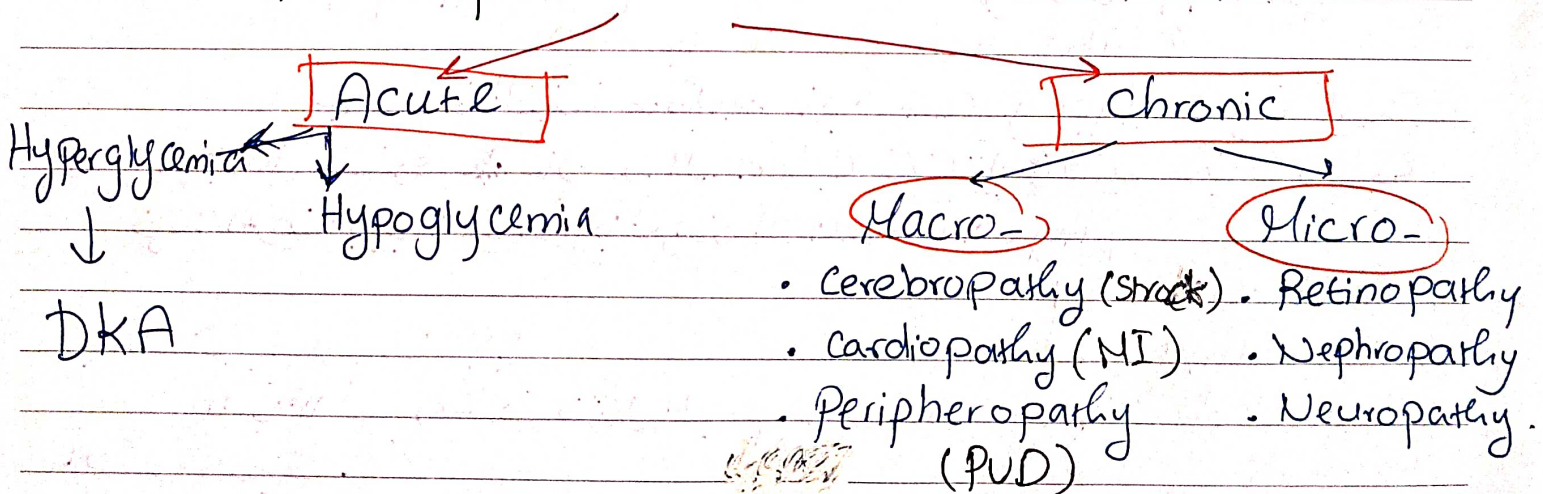
1. Anti-GAD
2. Anti insulin
3. Anti Zink
4. Anti Islands.

Type 2 DM:

↳ Insulin resistance DM. → associated with obese patients.

Sports + Diet : DM modification

Complications of DM:



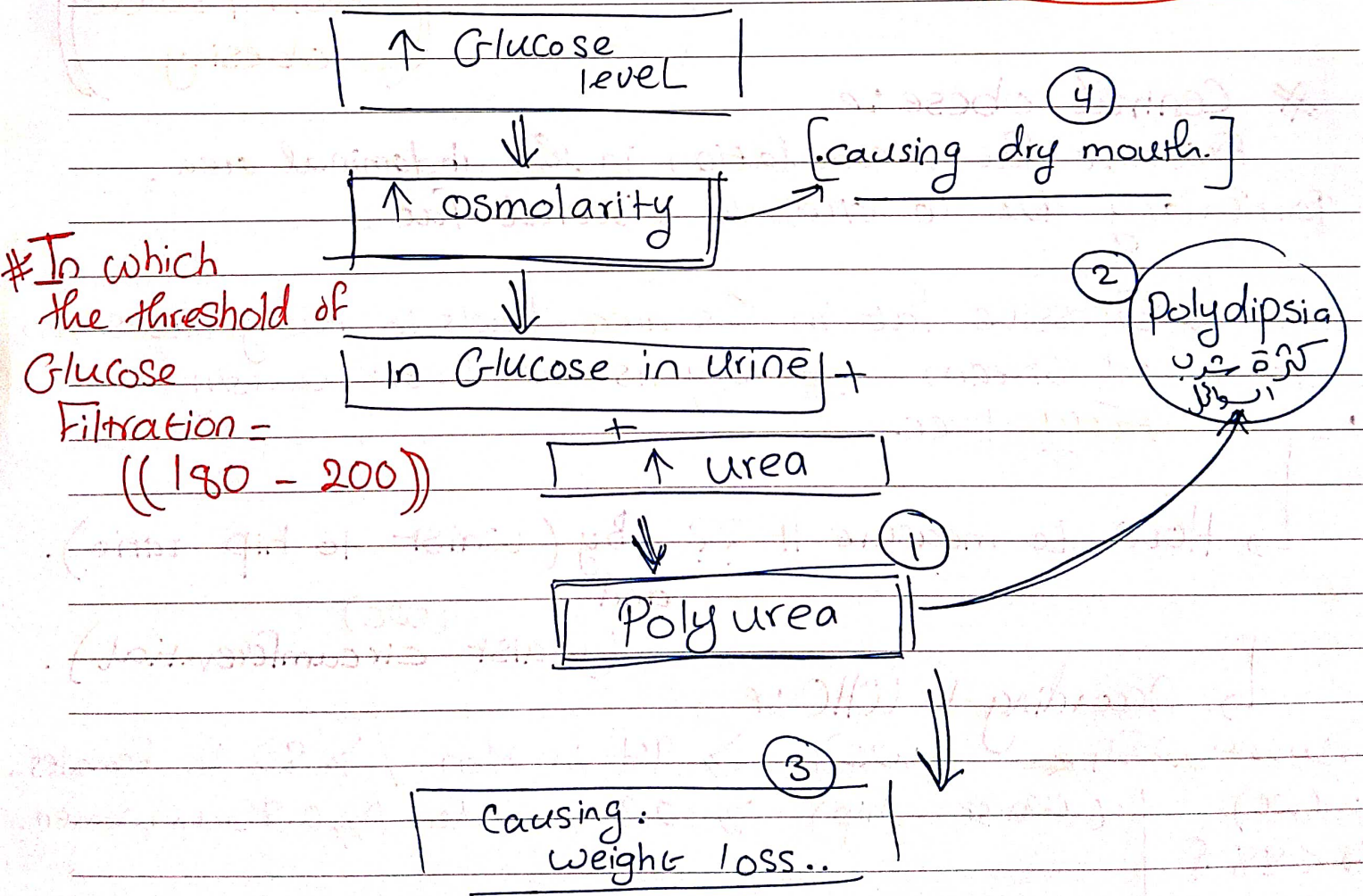
DKA ??

① Blood sugar: > 250 or DM

② Ketone: $\rightarrow$ Ketonemia
 $\rightarrow$ Ketouria

③ Acids:
 $\rightarrow$ $\text{pH} < 7.30$
 $\rightarrow$ $\text{HCO}_3^- < 15 - 18$

* What are the symptoms of Hyperglycemia??



Body mass index :
(BMI) = (weight / m²)

↳ N : 18.5 - 24.9

↳ over weight : 25 - 29.3

↳ obese : ≥ 30

↳ Type 1 $\Rightarrow \geq 30$

↳ Type 2 $\Rightarrow \geq 35$

↳ Type 3 $\Rightarrow \geq 40$

((Morbid / severe
obesity))

Central obese :

Excessive fat accumulation in the abdominal area,
Particularly due to excessive visceral fat.

↳ Excessive fat in this area leads to Fatty deposition
in blood stream or Organs as liver causing :
Fatty liver.

↳ How to measure it ?? By (waist to hip ratio).
and (wc)
(waist circumferential).

↳ According to WHO :

الذكور اعلى من النساء (wc) ≥ 94 in Men / ≥ 80 in Females.
(waist - hip) ≥ 0.9 in Men / ≥ 0.85 in Women.
N (wc)
↳ < 88 ♀
↳ < 92 ♂

* Metabolic Syndrome Criteria :-

[1] High fasting bld. Glucose ≥ 140 or diabetic Patient.

[2] lipid $\rightarrow \uparrow$ TG
 $\rightarrow \downarrow$ HDL

[3] hip ratio > 85 ♀
(WC) > 92 ♂

عندما قلنا 2/3

من آفات متلازمة
Metabolic Synd.

$\rightarrow \uparrow$ Risk to PCO $\Rightarrow$ Polycystic ovary disease

(closely related to
metabolic disorders

such as obesity + insulin resistance)

PCOS

وبعد، فتقول! لا

$\rightarrow$ Women who
have PCOS
are obese or
overweight in
large proportion

Revision :-

Types of insuline :-

[1] Short acting → Peak^o 2-3 h

: Regular insuline (30 min before meal)
(clear) (Humanized insuline) → duration 4-6 h

[2] Rapid acting : → Duration : 2-5 h.

- Aspart
 - Lispro
 - Glulisine
 - Inhaled insuline (at beginning of meal)
- (15 min before meal)

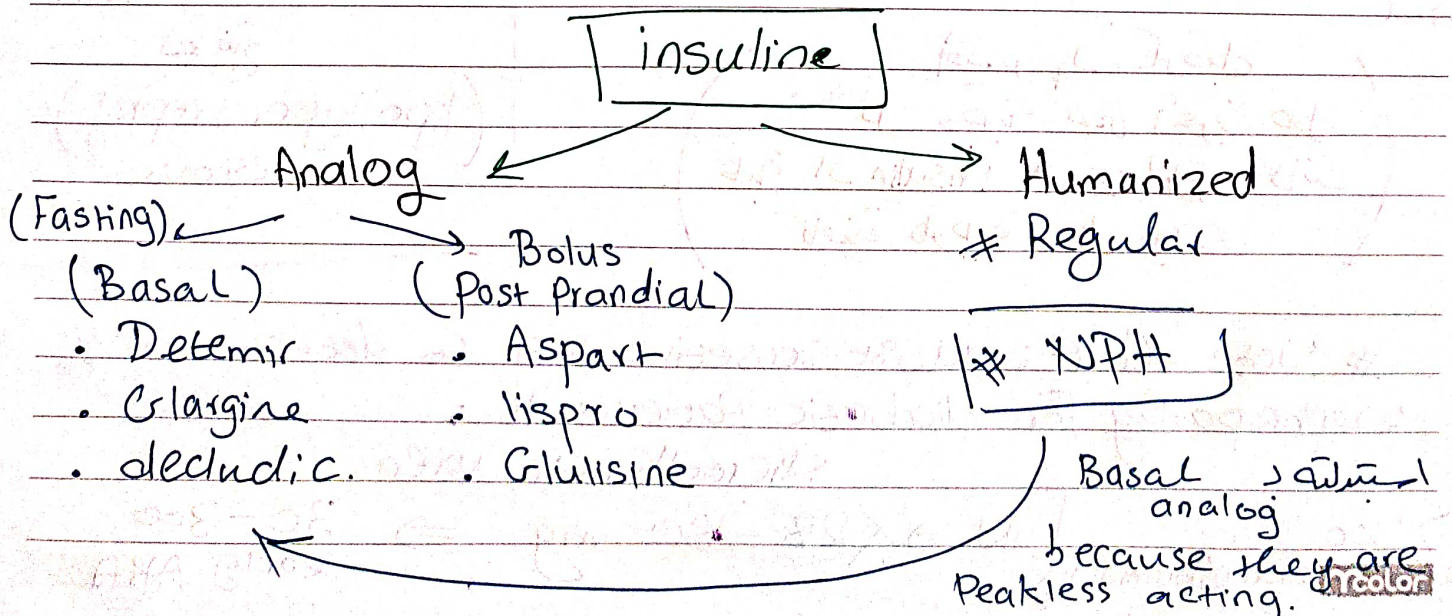
[3] long acting :

- Detemir
 - Glargine
 - Degludec
- Peakless ≈ (24 h duration)

Note that : (cloudy)

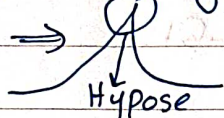
NPH = Regular insuline + Protamine
(Natural Protamine | Hagedron) (Fish semen)

* onset (1-2 h) * Duration is 12 h
↳ The Aim of NPH is Basal (Fasting glucose).



Type of insulin :

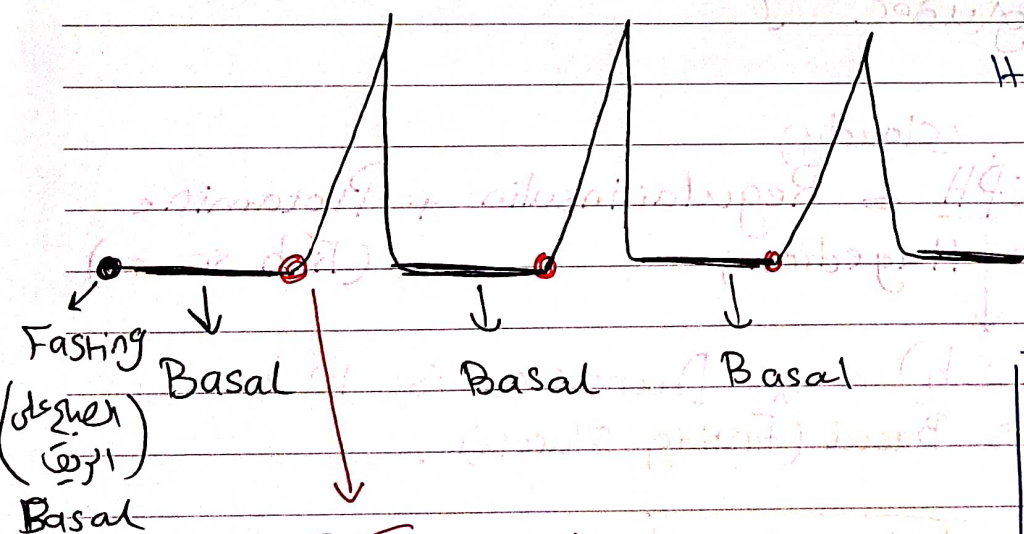
Basal (Fasting)

- NPH $\Rightarrow$ 
- Analog: Glargine (24h)
Detemir $\approx$ 18h
Degludec $>$ 40h

Show low risk of hypoglycemia.

Bolus (PP)

- Regular
30 min $\downarrow$ before the meal
 $\downarrow$
For 6-8h
 $\downarrow$
Risk of Hypoglycemia.
- Analog.
- Aspart
- Lispro
- Glulisine
 $\downarrow$
onset $\approx$ 5 min
 $\downarrow$
Short for 3h duration.



أفيسه، كرفيد
كل وجبة من أعرف هل
طبة ان insulin ان Bolus كانت
كافية لوجبة التي بعدا

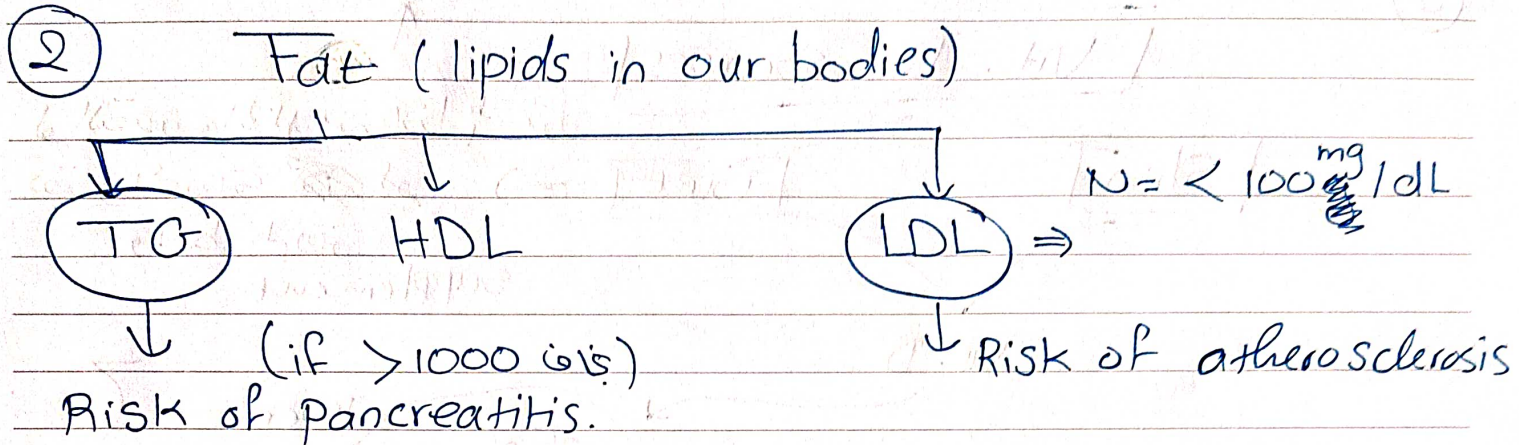
على نتيجة حنة,
insulin

لنج
(lipohypertrophy)
lesions

Note that : Most sensitive test to detect early Nephropathy for diabetic Patients is :

Microalbumin urea.

> 300 Macroalbuminuria | $N \Rightarrow < 28 - 30 \text{ mg} \Rightarrow 30 - 300$ early AKI 



Normally TG must be < 150 mg/dL

Causes of Hypertriglyceridemia ?? obesity
uncontrolled DM

Management is:

① Diet modification

Drugs
Familial

② Fasting ← بلاط إنز الفريضة

TG = 830

دواء ٢ يومية متتالية

TG → 300

③ Fibrate / Statins

Mainly For TG

↳ as: Phenofibrates.

→ Mainly For LDL

* Note that:

TG < 500 need diet only
> 500 diet + drug.

deficiency = (Muscula + Bone/Pain)

3

Vit. D Sources

Skin

Diet

لو التعرض والحمل من هذا
نقطة راحة
والأكل
Supplement.

Vit. D

liver
25α

Kidney

1α

Active form of

Vit D

(1.25 Hy.)

25α Hy. Vit. D

لكن لو كان هذا Supplement في حليبنا

4 MCC of Hypothyroidism is : Hashimoto thyroiditis.
[Anti Tpo (+ve)]
Indicate that.

Normal TSH level
= (0.4 - 4)

Hypothyroidism show
by investigations :-

Thyroid

الفحص

ultrasound

(TSH h)

(↑ TSH
↓ T₄, T₃)

Follicular Nodule in thyroid → Must make
thyroidectomy + For histopathology

Adenoma
Carcinoma

⑤ Most Common Cause of short stature is:
Familial

Causes:-

(سبب، نقص، نقص)

Complication during delivery of Mom.

Diet

GH level

N = GH being > 30

Best indicator is :

(GH velocity)

Growth Chart

X-ray of epiphyseal plate +
physis

(نمو، زيادة، نقص)

⑥

Adrenal gland

