

**23E
FORUM
NATIONAL
2022**

24 ET 25 NOVEMBRE, ANGERS

**PRÉVENIR, DÉPISTER, GUÉRIR :
NE LAISSONS PLUS LES PERSONNES
MALADES DU FOIE MOURIR EN SILENCE !**



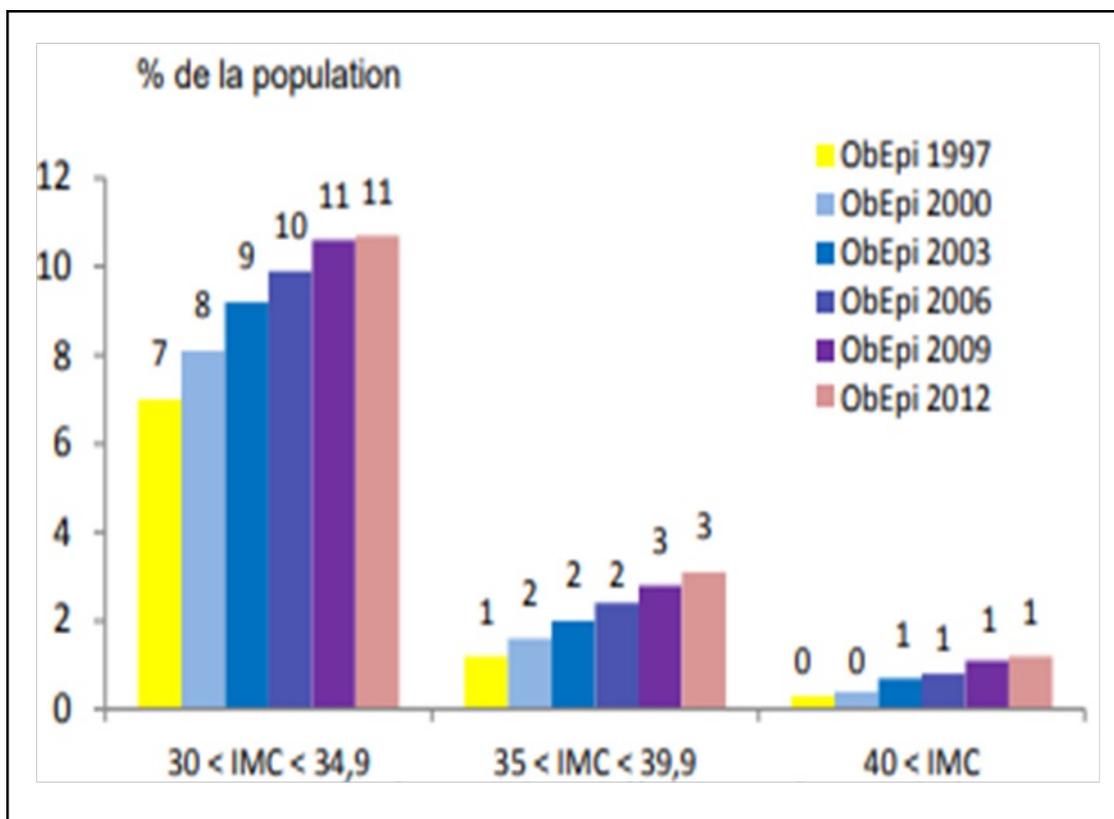
Chirurgie bariatrique

Dr Line NTANDJA WANDJI

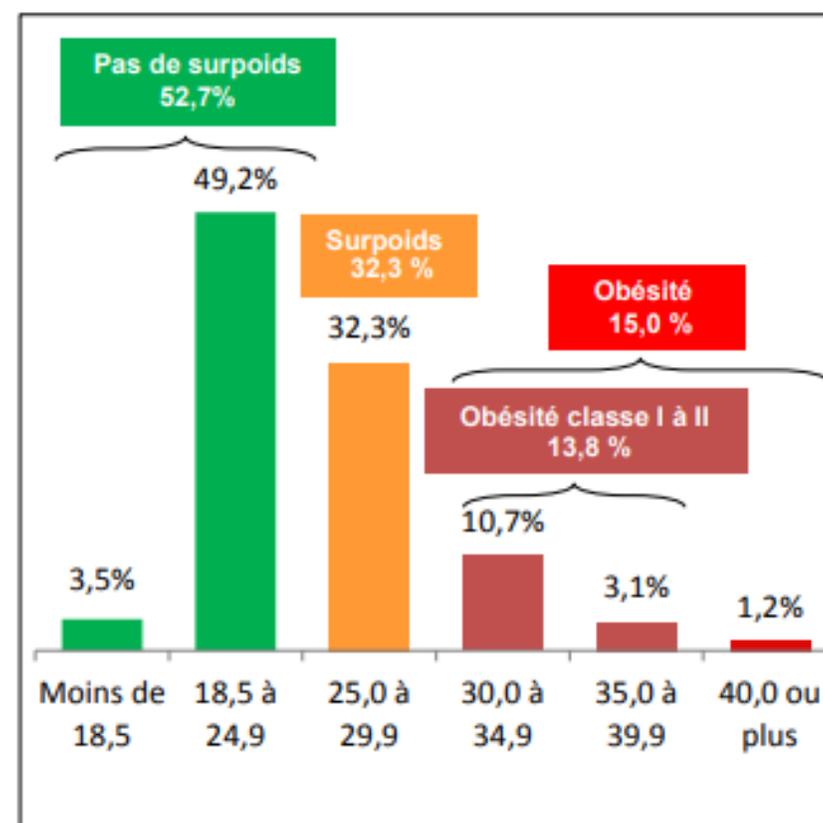
CHU Lille

25/11/2022

Obésité en France: problème de santé publique

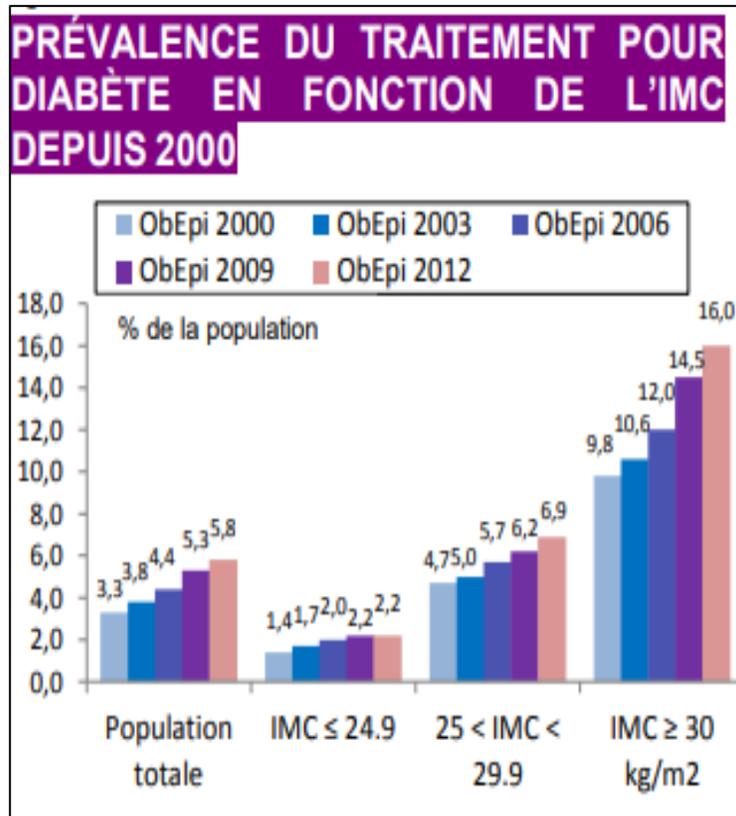


Evolution des différents classes d'obésité depuis 1997

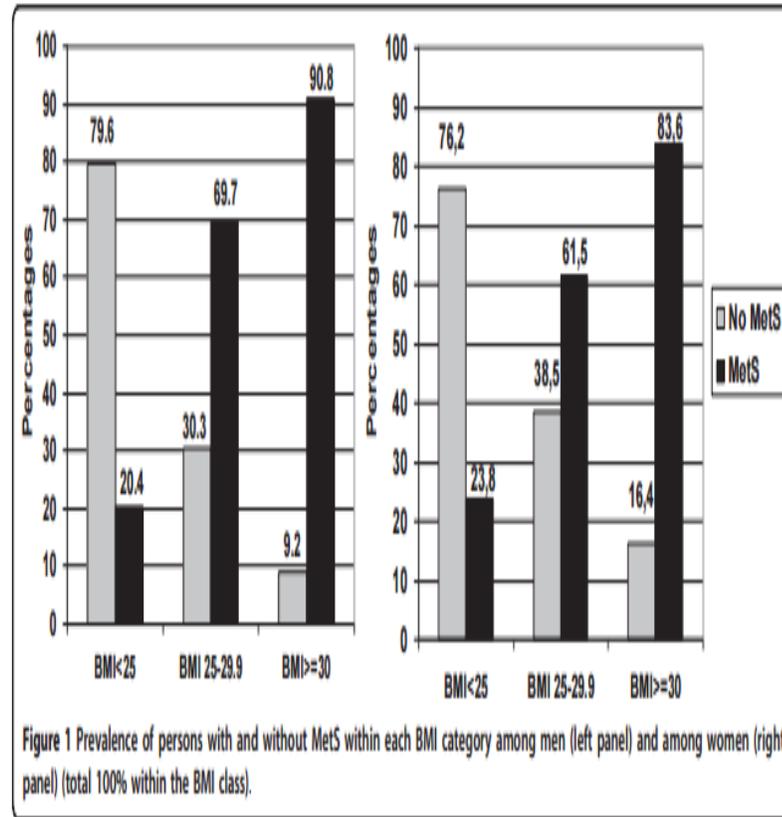


Répartition de la population en fonction du niveau d'IMC

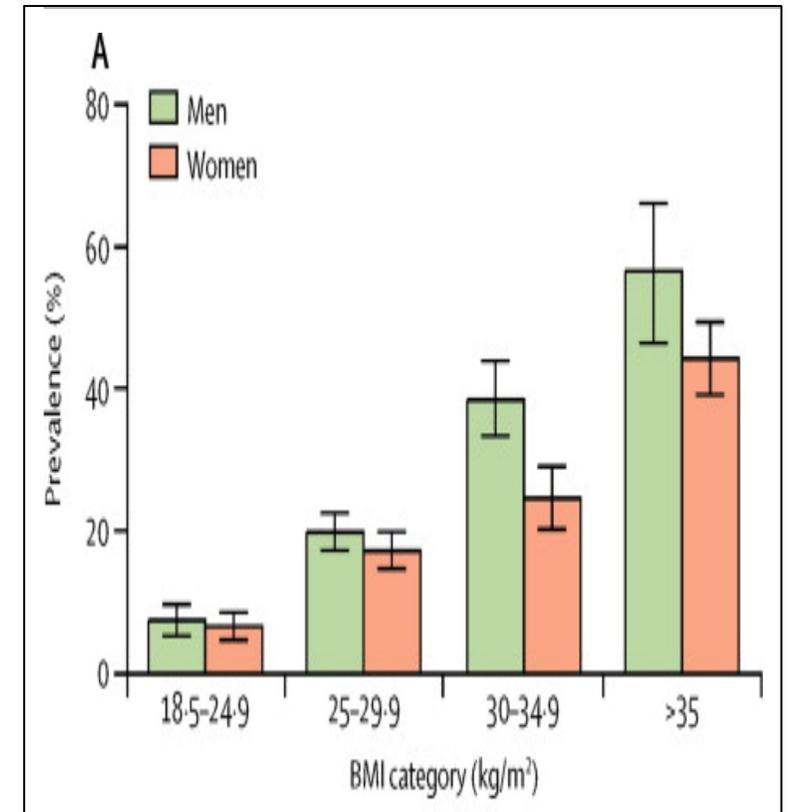
Obésité et complications métaboliques



OBEPI, 2012

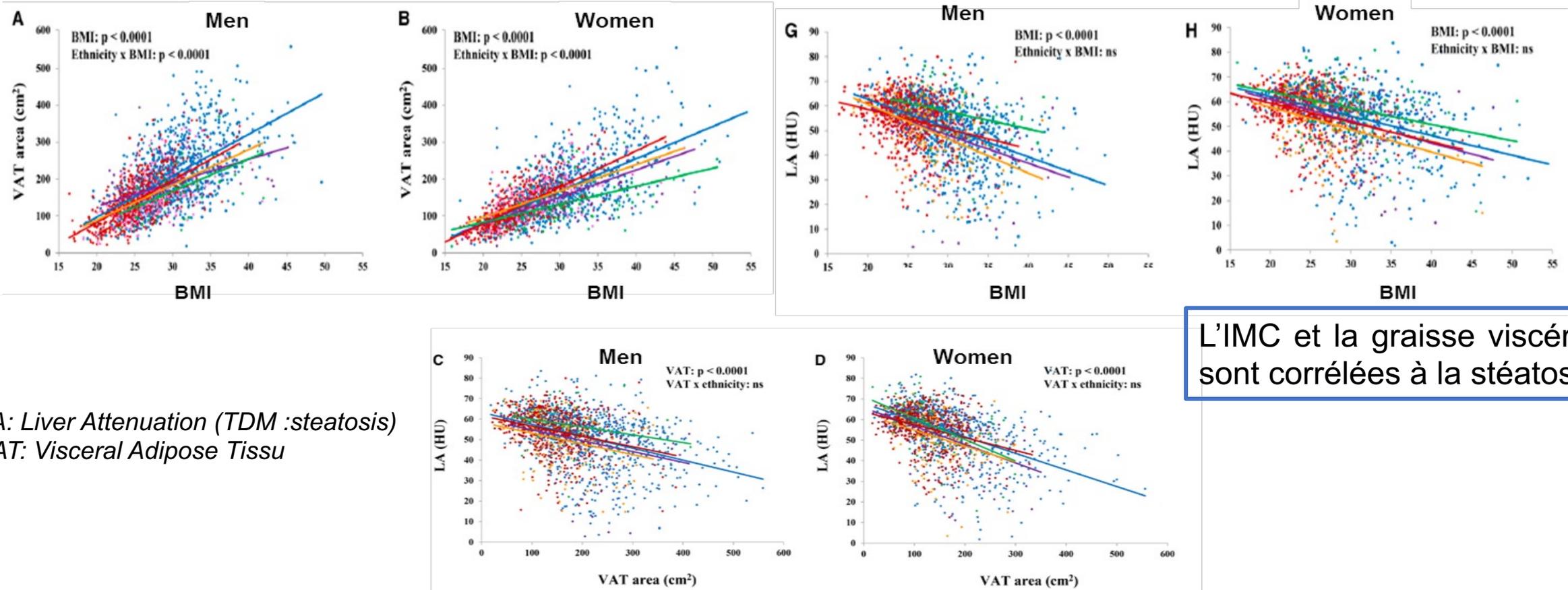


Pajunen et al, BMC Public Health 2011



Yki-Järvinen, Lancet Diabetes Endocrinol 2014

Obésité et stéatopathie métabolique

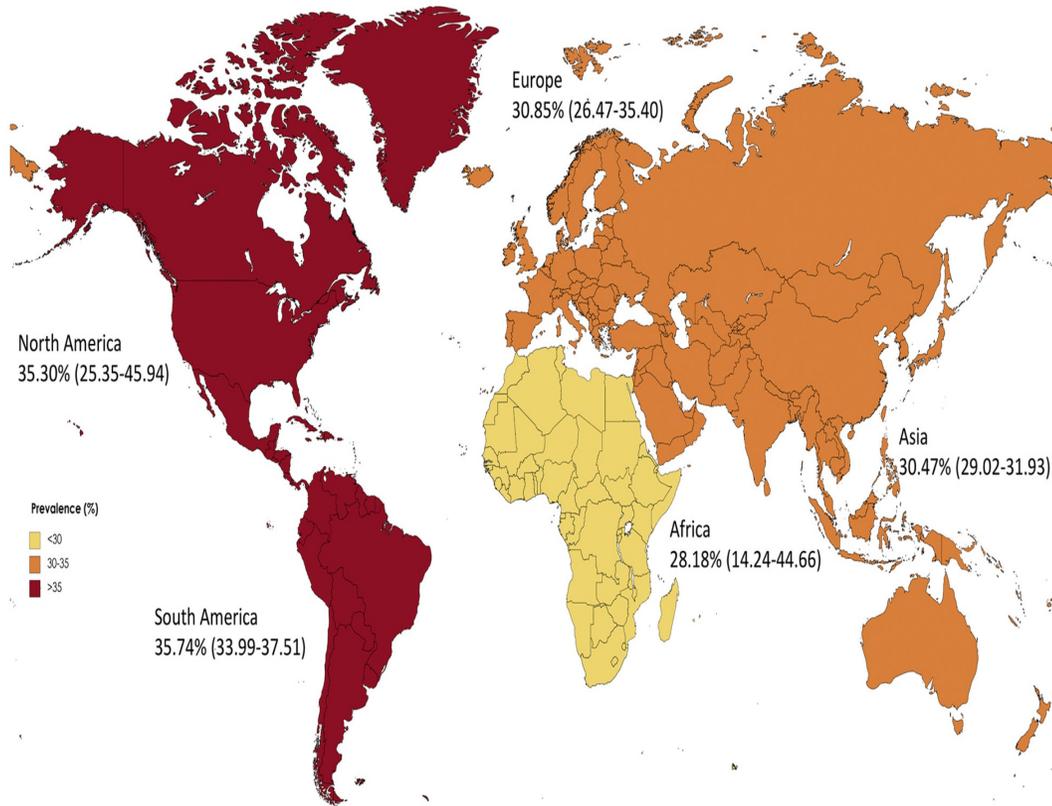


L'IMC et la graisse viscérale sont corrélées à la stéatose.

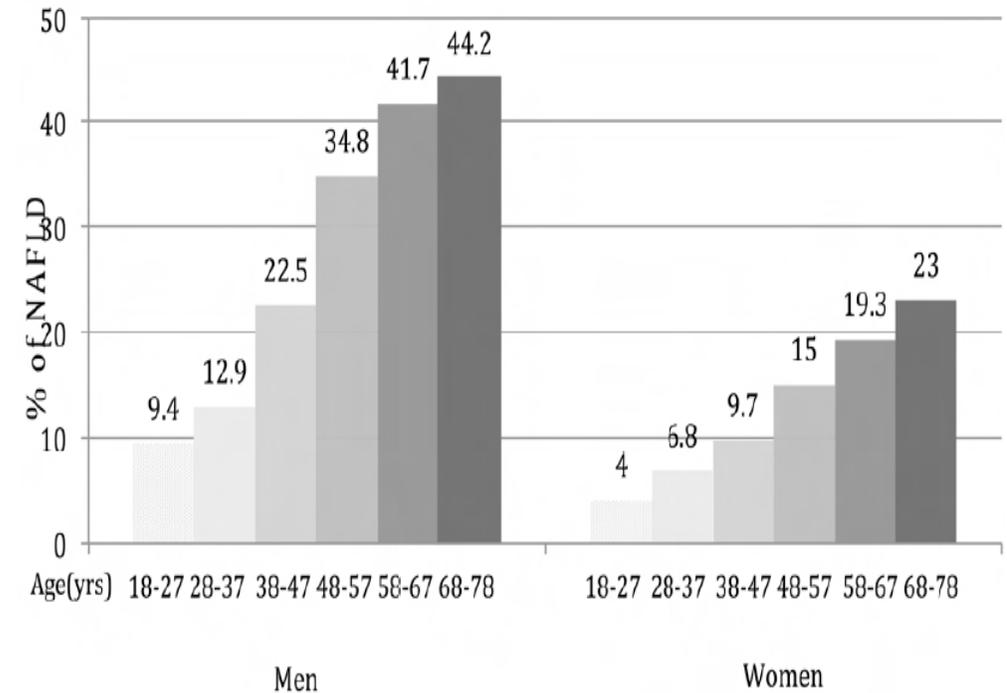
LA: Liver Attenuation (TDM :steatosis)
VAT: Visceral Adipose Tissu



Stéatopathie métabolique: pathologie d'aujourd'hui et de demain !



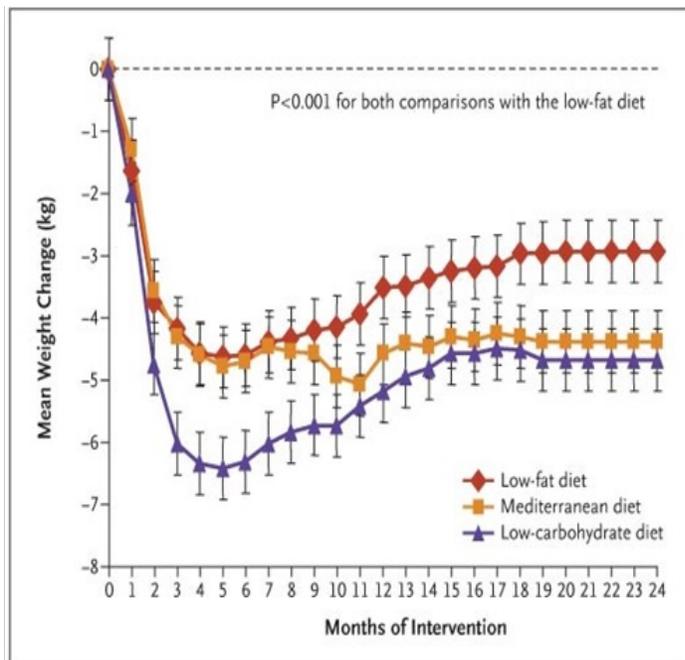
Le et al, CGH, 2021



Prévalence française : 18% (Fatty Liver Index)

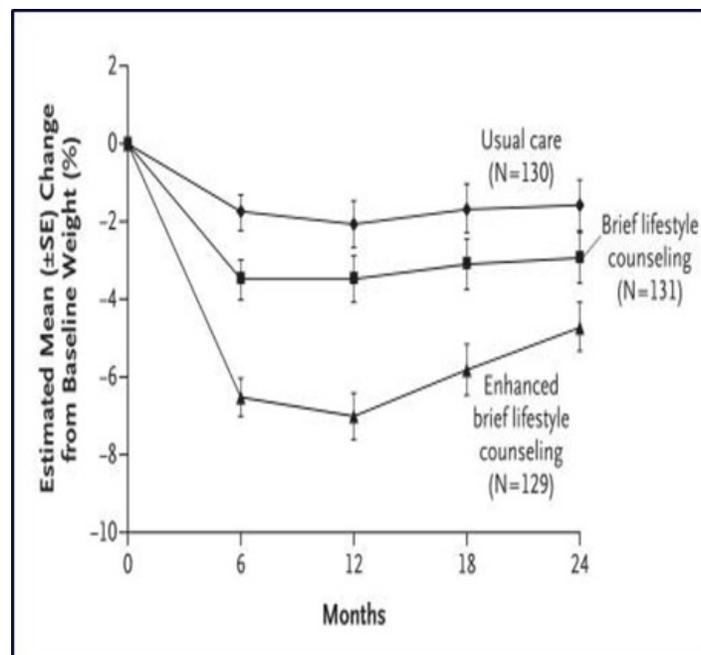
Nabi O et al, Gastroenterology 2020

Prise en charge de l'obésité: échec des RHD

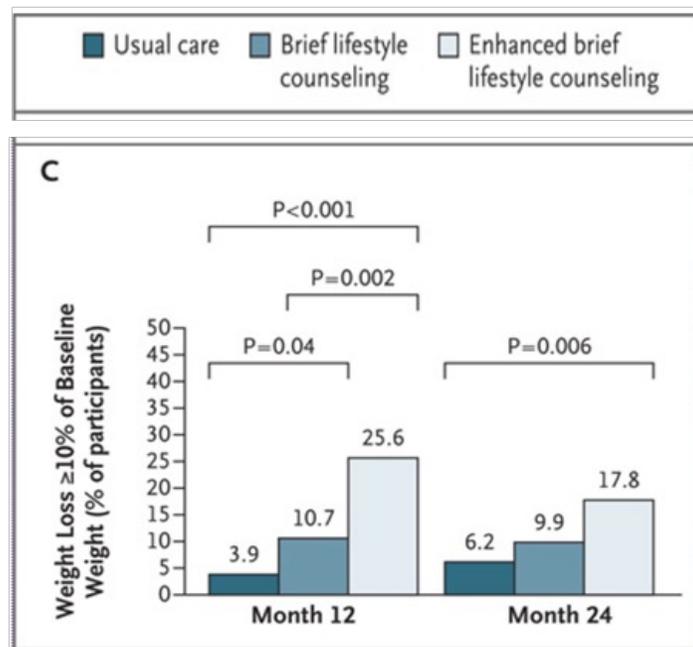


Perte de poids entre 3 et 5 kgs à 2 ans

Shai et al, NEJM 2008



Pourcentage de perte de poids entre 3 et 5 kgs à 2 ans
Entre 6 et 17% de patients avec ≥10% de perte de poids



Wadden et al, NEJM 2011

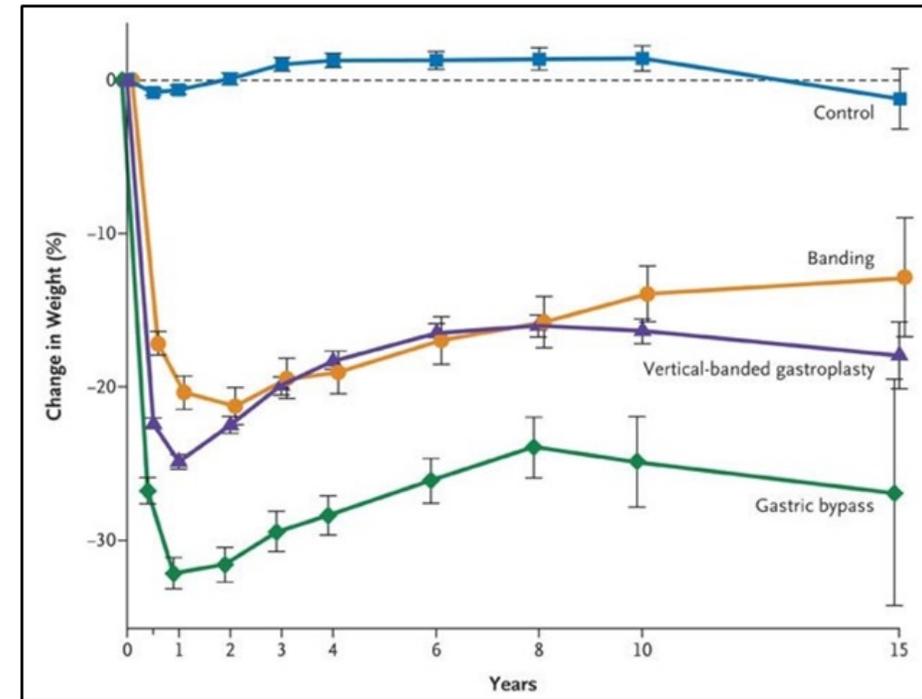
Efficacité de la chirurgie bariatrique sur la perte pondérale

A court terme

Outcome	Surgery	Weight loss camp	Residential intermittent program	Hospital outpatient program
Intention-to-treat analysis				
1-year weight loss (kg)	40.3 (14.1)	21.7 (12.5)	17.6 (11.5)	6.7 (9.8)
1-year weight loss (%)	30.5 (9.4)	14.8 (8.0)	13.0 (8.2)	5.3 (7.4)
Analysis of completers				
1-year weight loss (kg)	41.0 (14.1)	20.8 (12.5)	18.1 (11.1)	6.6 (10.2)
1-year weight loss (%)	31.0 (9.2)	14.5 (8.1)	13.4 (8.0)	5.3 (7.8)

Martins et al, Obes Surg 2011

A long terme



Sjostrom et al, NEJM 2004

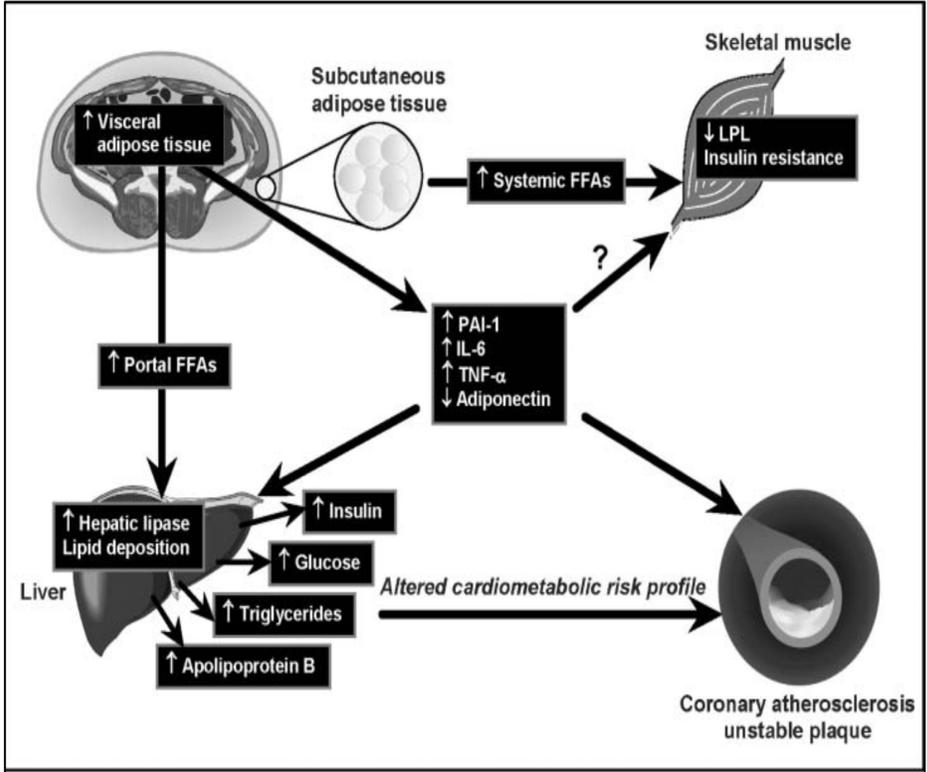
Sjostrom et al, NEJM 2007

Efficacité de la chirurgie bariatrique sur la réduction de l'obésité viscérale

	Diet±exercise		Drugs		Surgery		All	
Δ BMI (kg/m ²)	2.6±1.69		2.3±1.63		9.0±4.11 ^a		4.2±3.76	
Δ waist (cm)	6.19±4.17		4.5±2.78		17.1±3.07 ^a		8.7±5.78	
Δ BMI %	8.0±5.11		7.0±4.54		21.1±9.39 ^a		11.1±8.57	
Δ waist %	6.6±3.88		4.4±2.77		14.2±2.58 ^a		7.9±4.84	
	VI FAT	SC FAT	VI FAT	SC FAT	VI FAT	SC FAT	VI FAT	SC FAT
<i>Absolute changes</i>								
Δ area (cm ²)	35.1±37.82 ^b	52.1±80.87	31.6±52.19 ^b	43.0±96.77	79.3±50.07 ^a	184.9±88.17 ^a	40.6±26.91 ^b	66.6±55.48
Δ weight (kg)	1.0±1.21 ^b	4.2±2.22	0.1±0.51 ^b	0.5±0.62	3.3±3.11 ^{b,a}	10.1±14.12	2.0±2.35 ^b	6.4±8.59
Δ volume (cm ³)	571.3±536.37	523.6±695.91	177.2±86.71	338.2±137.24	1209.8±700.97 ^a	3330.5±1278.75	676.8±483.25 ^b	1085.6±639.21
Δ thickness (mm)					35.7±5.08 ^c	11.2±3.24	35.7±5.08 ^c	11.2±3.24
Δ area %	23.6±12.97	14.6±9.01	20.0±8.25	11.4±7.46	41.0±16.09 ^a	31.1±10.47	24.9±13.86 ^c	15.5±10.07
Δ weight %	30.4±5.56	21.3±6.41	3.6±8.61	3.3±2.32	42.8±28.72 ^a	33.3±29.68	32.0±23.47 ^c	22.7±19.12
Δ volume %	17.5±7.44	15.8±2.89	26.5±13.87	19.18±4.79	60.6±9.73	48.3±9.88	32.9±21.52 ^c	24.1±14.54
Δ thickness %					49.3±9.43 ^c	24.9±4.77	49.3±9.43 ^c	24.9±4.78

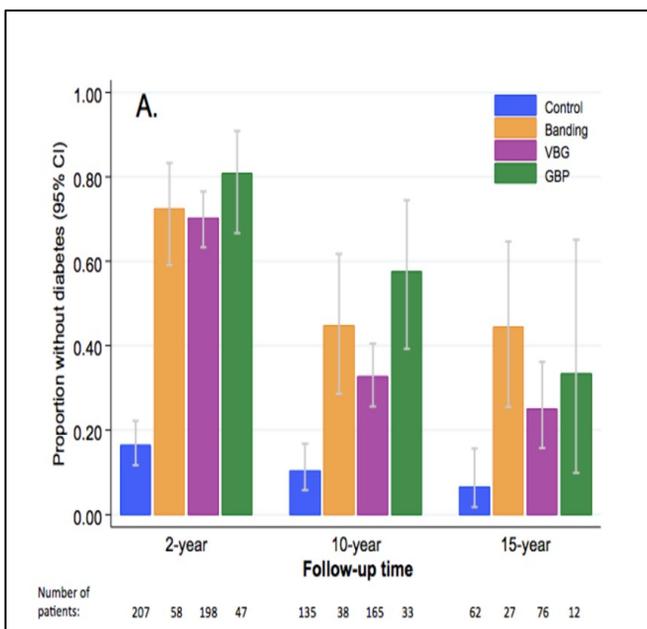
Abbreviations: BMI, body mass index; SC FAT, subcutaneous fat; VI FAT, visceral fat.

Merlotti et al, Int J Obes 2017

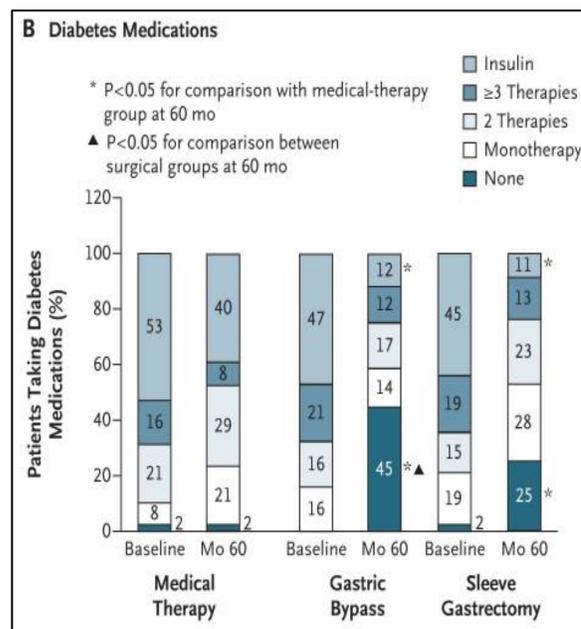


Després, Ann Med 2006

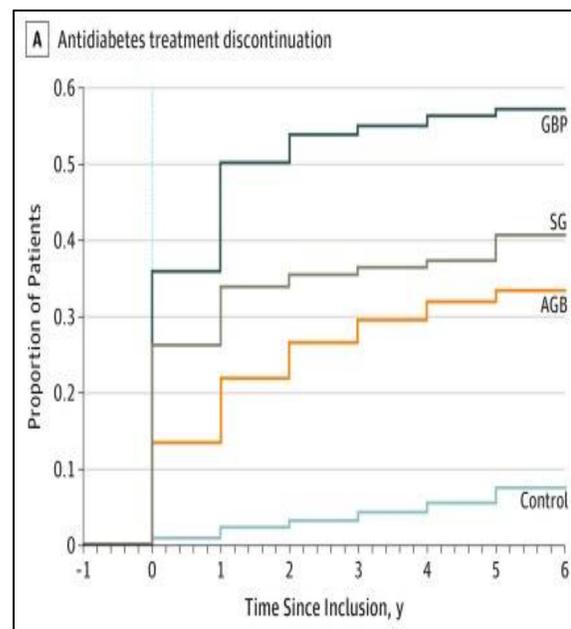
Chirurgie bariatrique et diabète de type 2



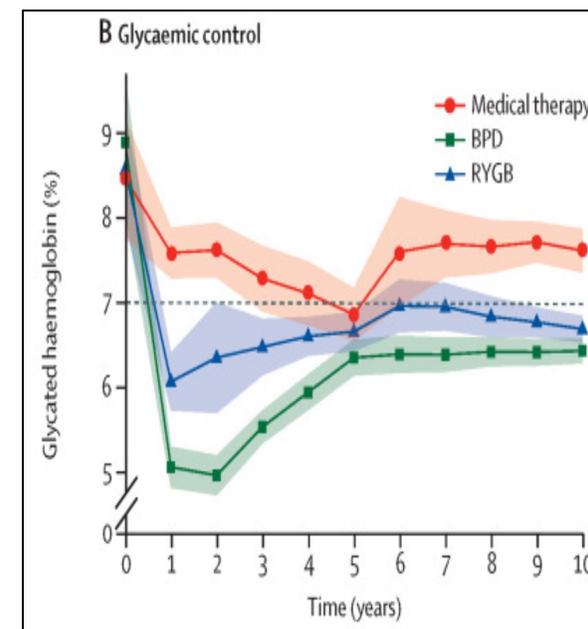
Sjostrom et al, NEJM 2007



Schauer et al, NEJM 2017

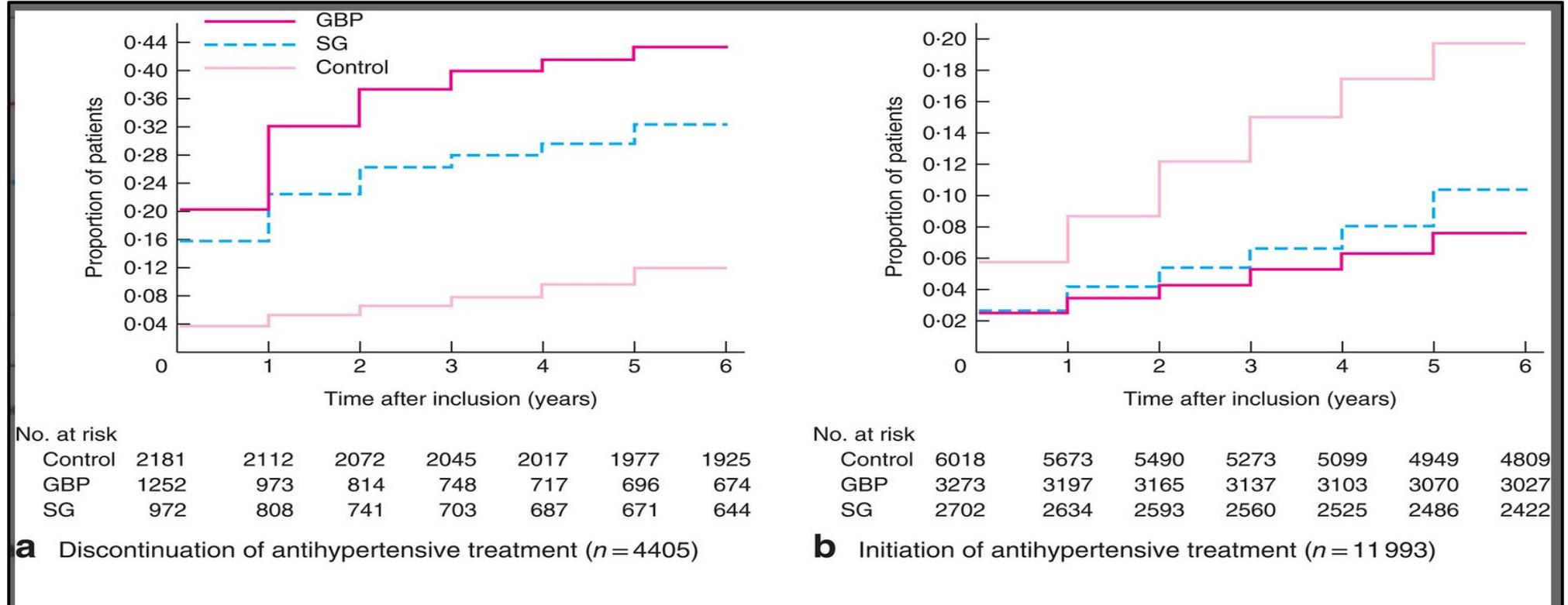


Thereaux et al, Jama Surg 2018

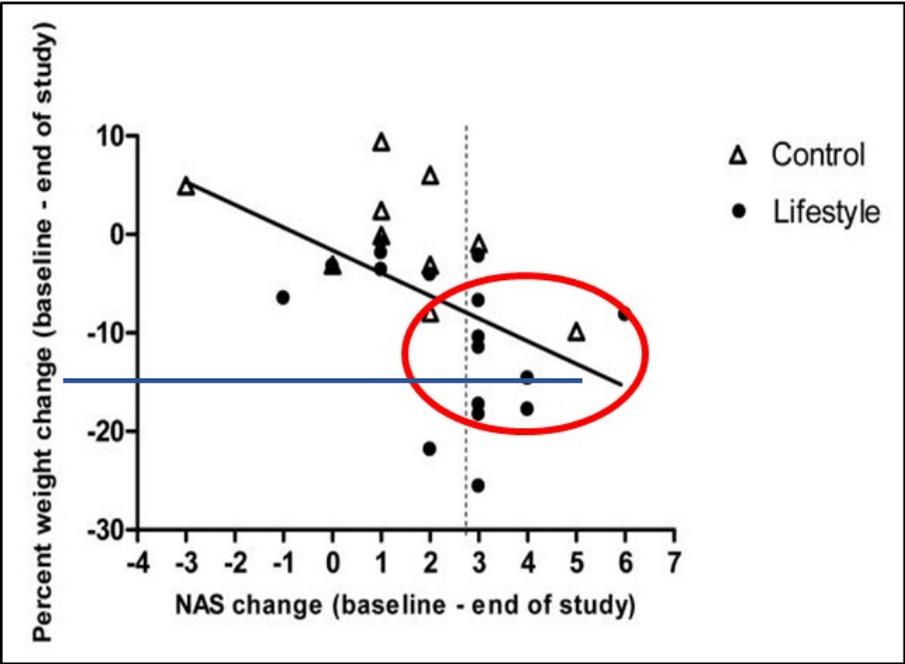


Mingrone et al, Lancet 2021

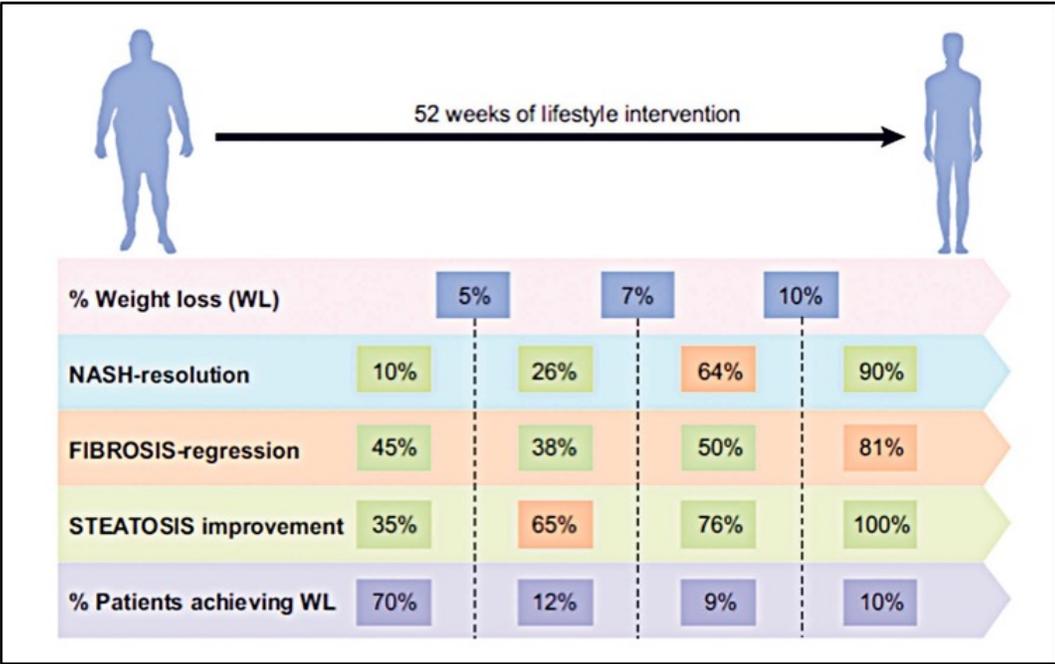
Chirurgie bariatrique et HTA



NAFLD et RHD



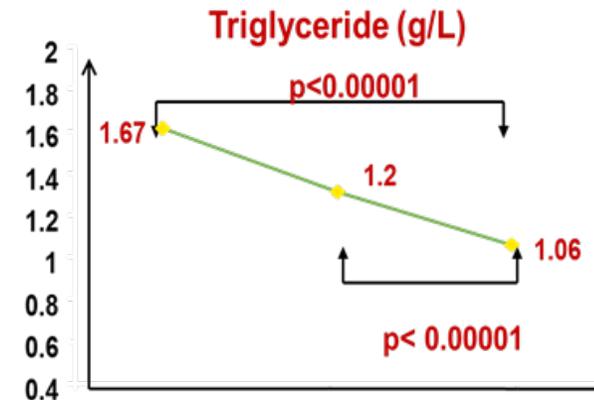
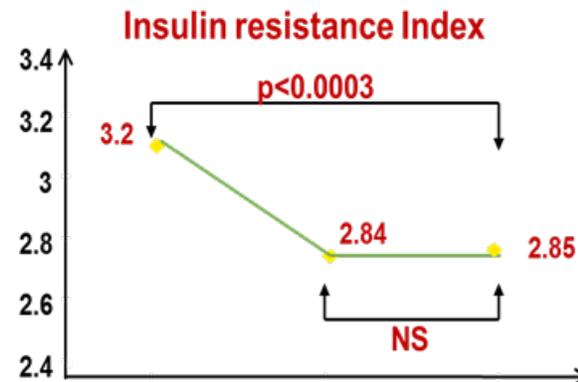
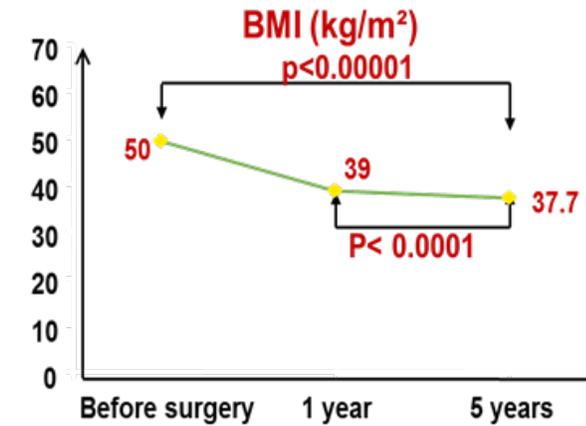
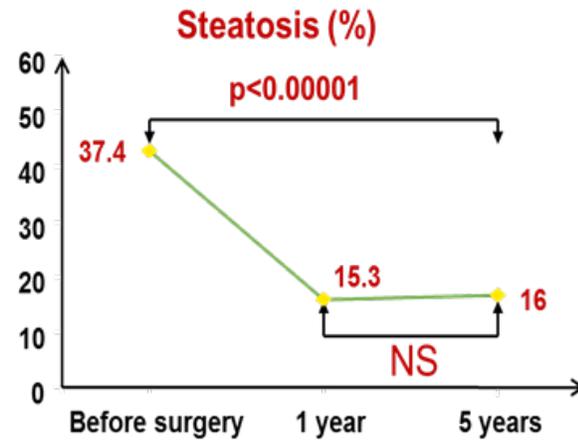
Promrat et al, *Hepatology* 2010



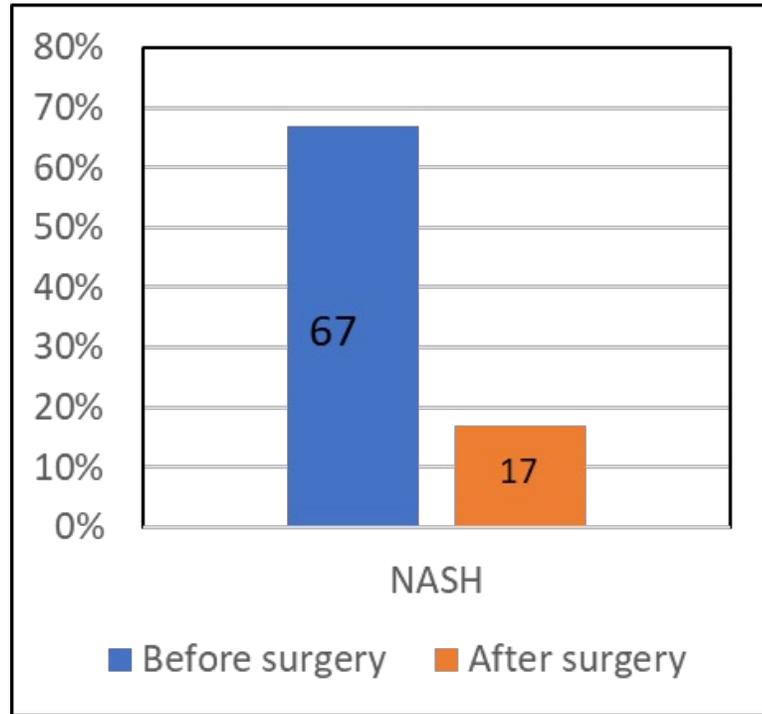
Vilar-Gomez et al, *Gastroenterology* 2015

Perte de Poids > 10%
Diminution du NAS ≥ 3

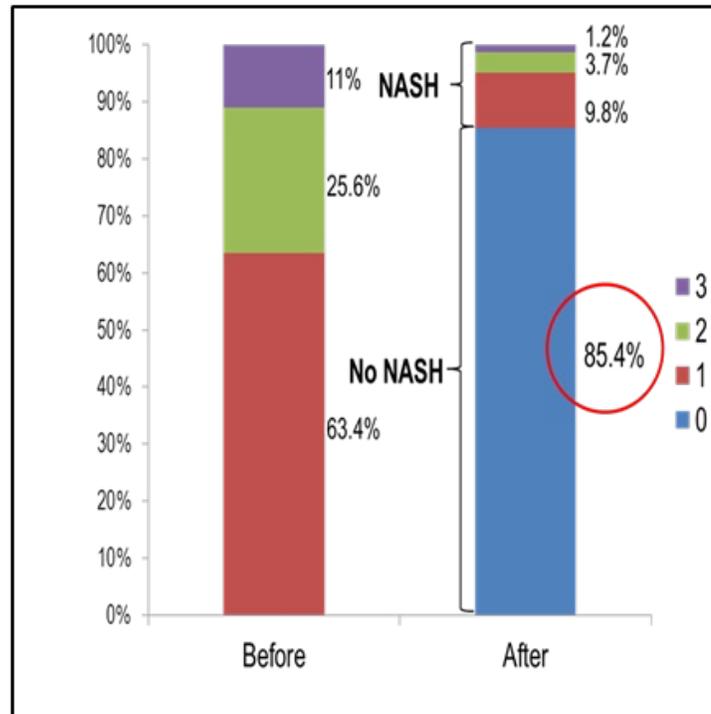
Chirurgie bariatrique et NAFLD



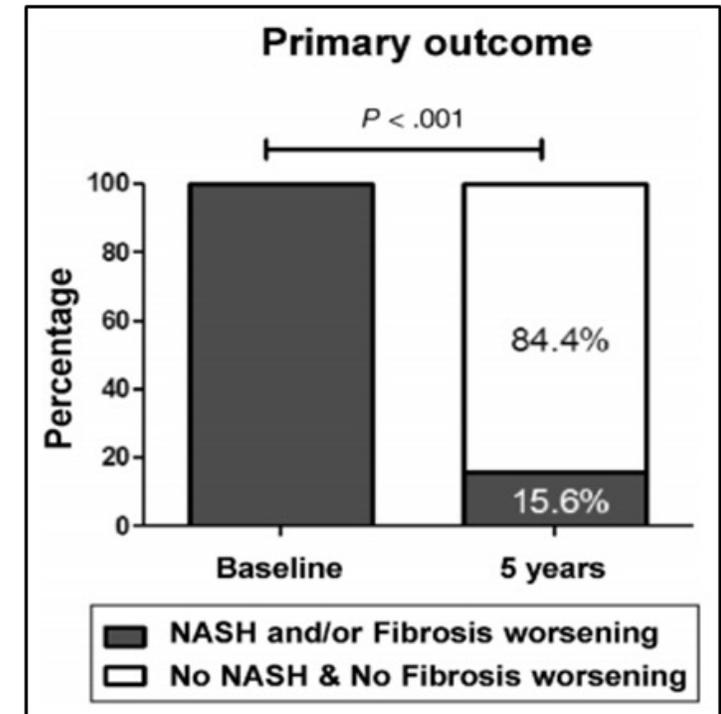
Chirurgie bariatrique et NASH



Dixon, Hepatology 2004

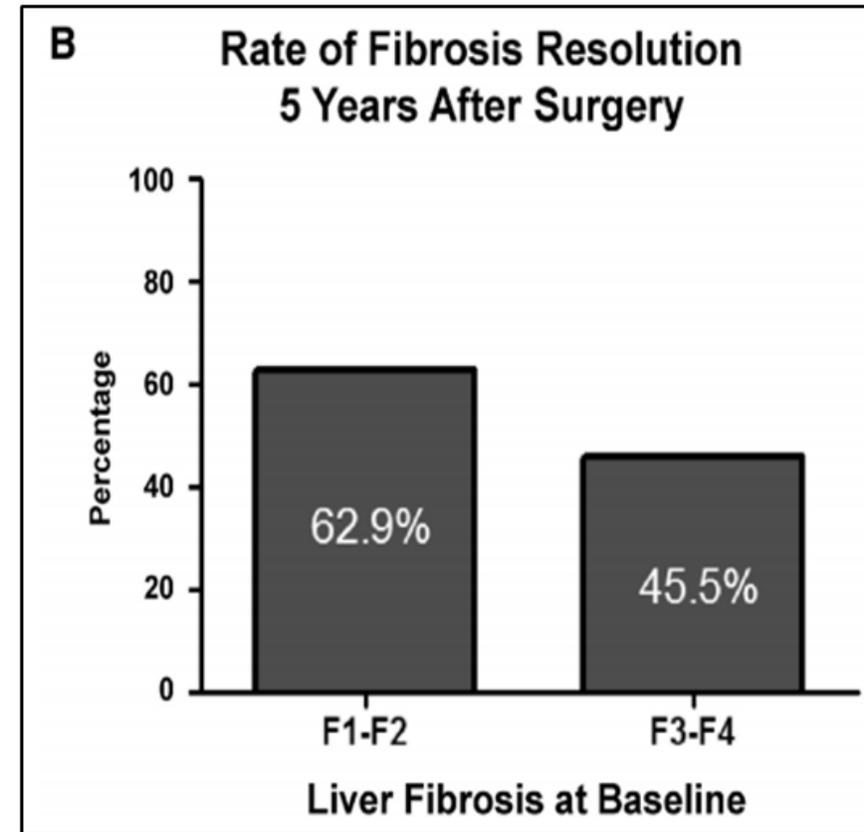
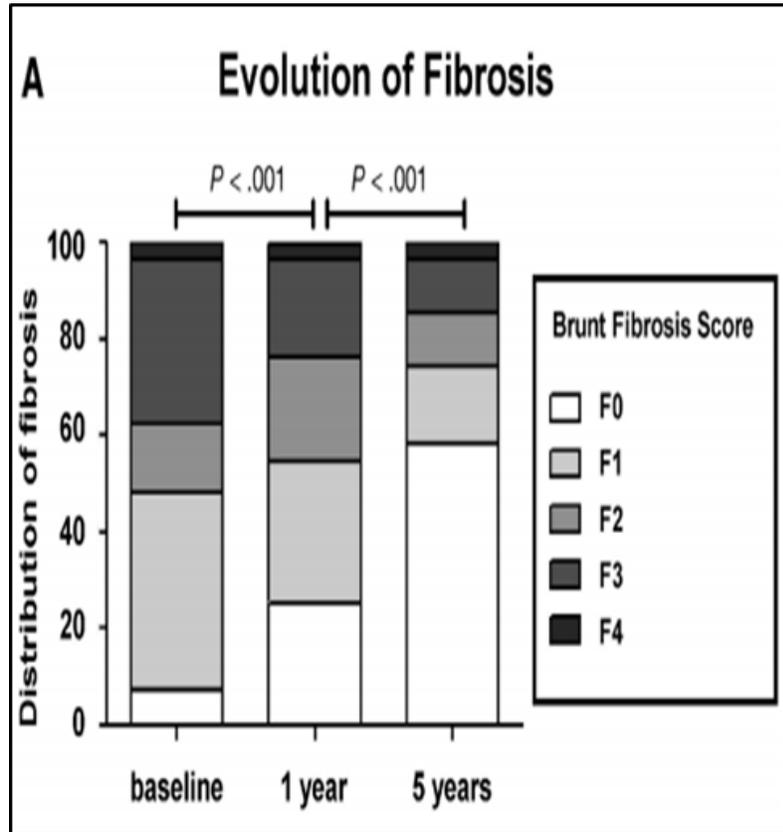


Lassailly et al, Gastroenterology 2015



Lassailly et al, Gastroenterology 2020

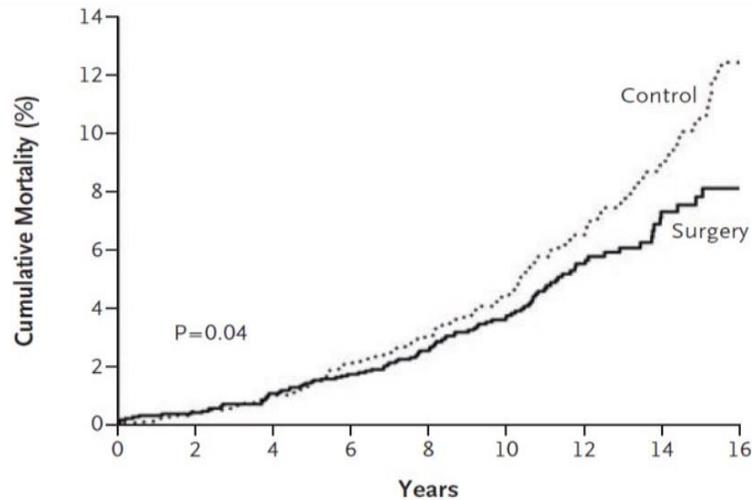
Chirurgie bariatrique et NASH



Chirurgie bariatrique , évènements cardiovasculaires et mortalité

Réduction de la mortalité globale

Swedish Obese Subjects (SOS) study



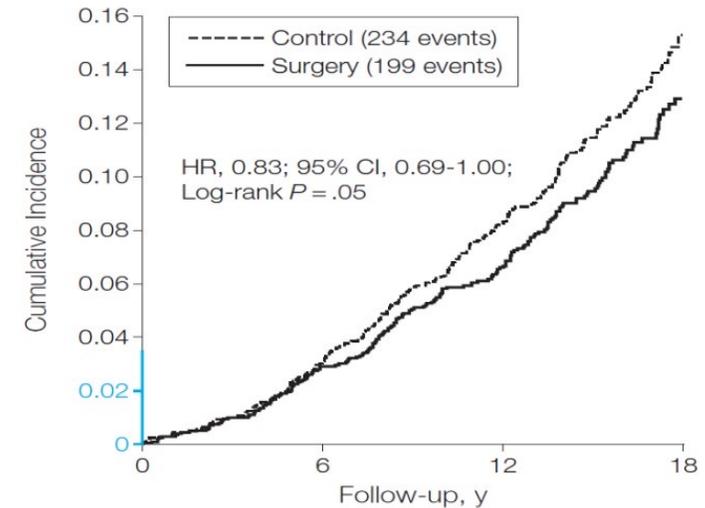
No. at Risk

	2010	2001	1987	1821	1590	1260	760	422	169
Surgery	2037	2027	2016	1842	1455	1174	749	422	156
Control									

Sjöström L et al ,nejm ,2007

Réduction des évènements CAV

Total cardiovascular events



No. at risk

	2037	1945	1326	361
Control	2010	1921	1468	375
Surgery				

Sjostrom L et al, JAMA ,2012

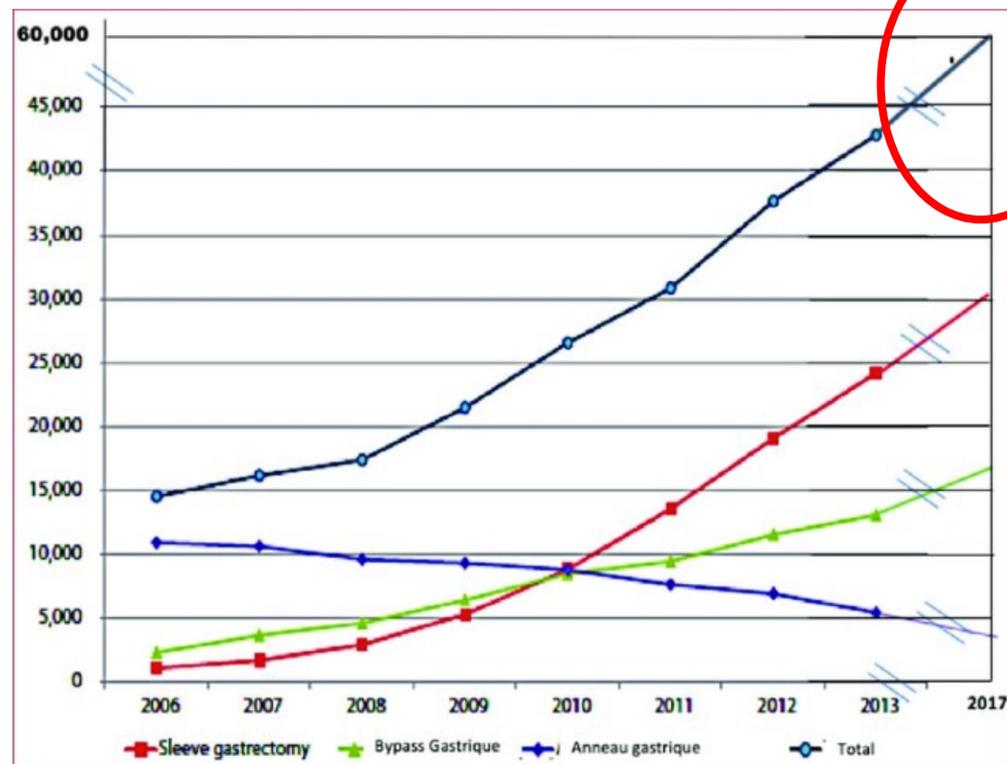
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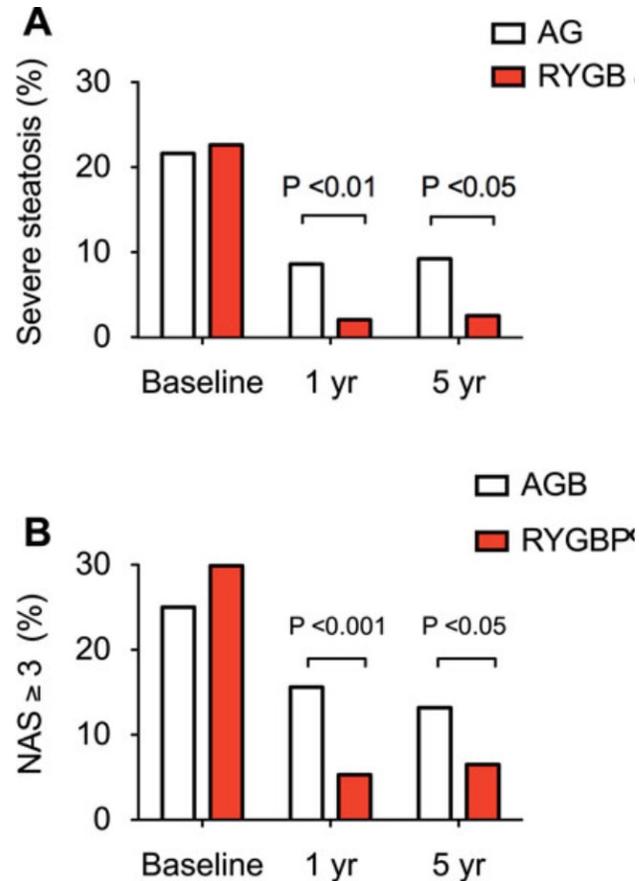
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Evolution de la chirurgie bariatrique et métabolique en France

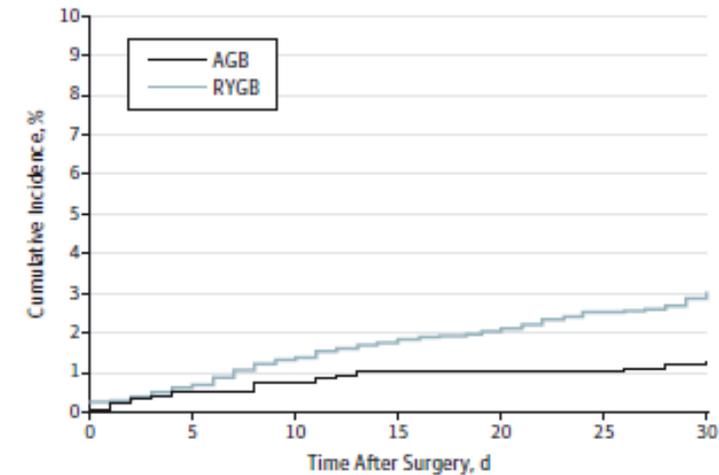


Anneau ou bypass pour la Nafld?



Caiazzo R et al, *Annals of Surgery* 2014

Figure 1. Cumulative Incidence of Major Adverse Events at 30 Days After Bariatric Surgery by Procedure Type



Major adverse events include death, failure to discharge from hospital, deep vein thrombosis, pulmonary embolism, or subsequent procedural intervention. AGB indicates adjustable gastric band; RYGB, Roux-en-Y gastric bypass. Propensity score-adjusted between-procedure comparison $P < .05$.

Aterburn D et al, *JAMA surg*, 2014

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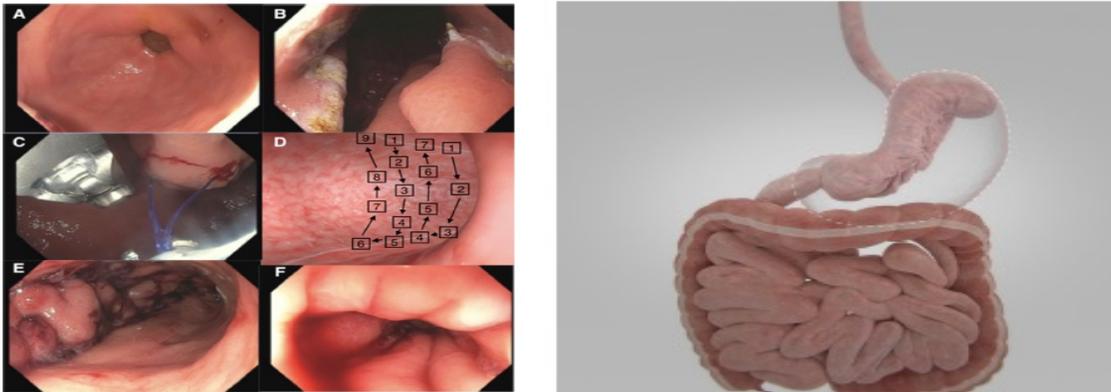


Anneau ou bypass pour la NASH?

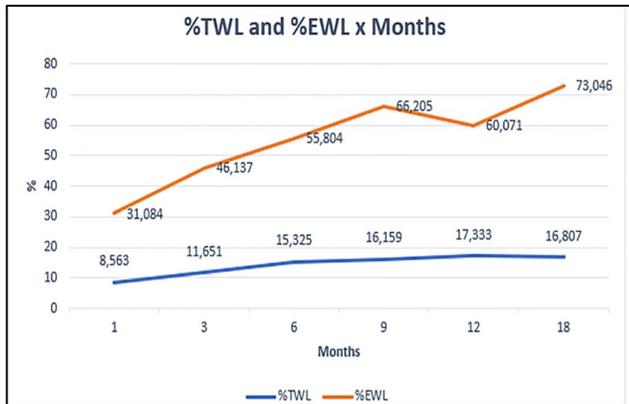
Supplementary Table 6. Comparison of Gastric Bypass and Laparoscopic Gastric Banding Efficacy 5 Years After Surgery

Characteristics	LAGB	Roux-en-Y gastric bypass	P value ^a
No NASH and no fibrosis worsening	68.4	90.2	.03
NAS ≥ 3	33.3	66	.003
Steatosis, %	10 (1–60]	5 (1–17.5]	.18
Fibrosis	1 (0–2)	0 (0–1)	.08
BMI loss, kg/m^2	10.8 \pm 9.5	12.7 \pm 5.7	.07
Biological			
Fasting glucose, mg/dL	106 (87–126)	103 (89–124)	.88
HbA _{1c} , %	5.7 (5.3–7.3)	6 (5.6–6.6)	.60
Insulin resistance (1/QUICKI)	2.9 (2.7–3.4)	2.9 (2.7–3.1)	.62
Total cholesterol, $mmol/L$	4.7 (4.3–5.4)	4.6 (3.9–5.3)	.33
LDL cholesterol, $mmol/L$	2.8 (2.4–3.5)	2.7 (2.3–3.3)	.14
HDL cholesterol, $mmol/L$	1.3 (1.1–1.5)	1.4 (1.2–1.6)	.19
Triglycerides, $mmol/L$	1.2 (0.8–1.9)	1.1 (0.7–1.5)	.27
AST, IU/L	23 (17–32)	23 (18–30)	.96
ALT, IU/L	20 (13–31)	20 (16–25)	.93
GGT, IU/L	27 (16–58)	19 (11–28)	.04
Total bilirubin, mg/dL	0.5 (0.3–0.6)	0.4 (0.3–0.6)	.92

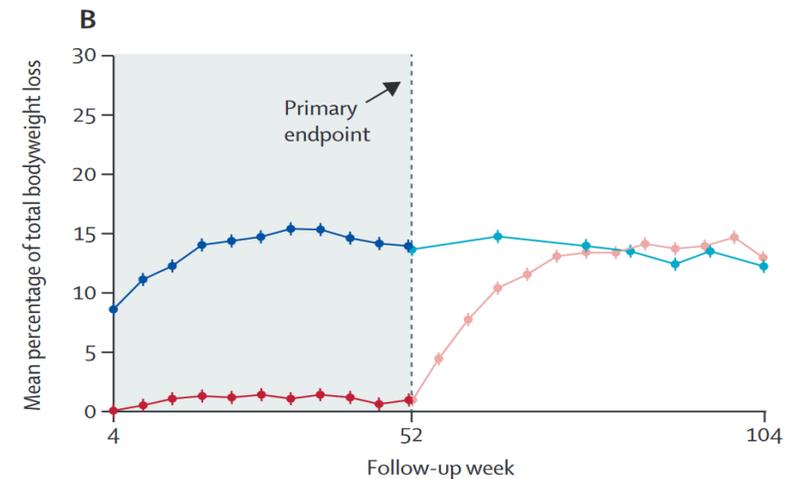
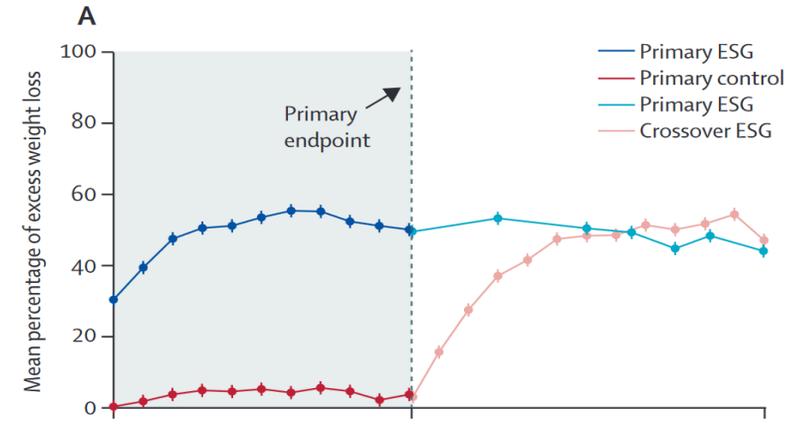
Place de la gastroplastie endoscopique?



Sartoretto, Obes Surg, 2018



De Miranda Neto et al, Obes Surg, 2020



Abu Dayyeh et al, Lancet, 2022



Conclusion

- L'augmentation de la prévalence de l'obésité a pour conséquence une augmentation de la prévalence des complications métaboliques et de la stéatopathie métabolique.
- Chez l'obèse morbide, la chirurgie bariatrique est un traitement efficace de la NASH et de la fibrose extensive.
- Les alternatives endoscopiques à la chirurgie sont en cours de développement mais nécessitent des validations complémentaires.

Merci