Presidenti: P. Gentileschi, A. Giovanelli,
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21-22 Dicembre 2020
XXVIII Congresso
Nazionale
SICOB ONLINE

EFFETTO PREVENTIVO DELLA CHIRURGIA BARIATRICA SULLE NEOPLASIE CORRELATE ALL'OBESITÀ

G. Casella
«Sapienza» Università di Roma

CHIRURGIA BARIATRICA e NEOPLASIE

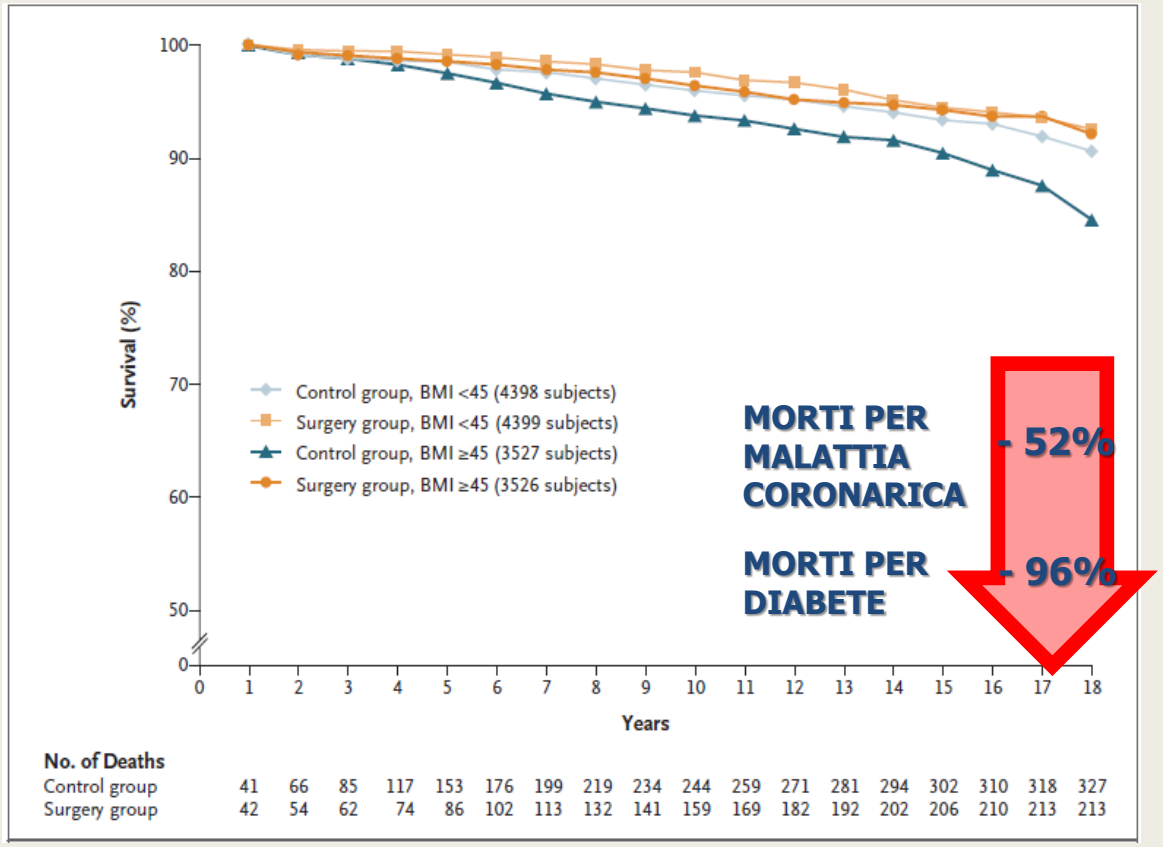
- AZIONE PREVENTIVA SULLA INSORGENZA ?
- QUAL E' IL MECCANISMO ?
- CHI NE BENEFICIA MAGGIORMENTE ?
- IL PROBLEMA DELLO SCREENING

❑ AZIONE PREVENTIVA SULLA INSORGENZA ?

Long-Term Mortality after Gastric Bypass Surgery

Ted D. Adams, Ph.D., M.P.H., Richard E. Gress, M.A., Sherman C. Smith, M.D., R. Chad Halverson, M.D., Steven C. Simper, M.D., Wayne D. Rosamond, Ph.D., Michael J. LaMonte, Ph.D., M.P.H., Antoinette M. Stroup, Ph.D., and Steven C. Hunt, Ph.D.

The NEW ENGLAND JOURNAL of MEDICINE



Obesity (Silver Spring). 2009 April ; 17(4): 796–802. doi:10.1038/oby.2008.610.

Cancer Incidence and Mortality After Gastric Bypass Surgery

Ted D. Adams[1,2], Antoinette M. Stroup[3], Richard E. Gress[1], Kenneth F. Adams[4], Eugenia E. Calle[5], Sherman C. Smith[6], R. Chad Halverson[6], Steven C. Simper[6], Paul N. Hopkins[1], and Steven C. Hunt[1]

Surgery (GBP) Vs No surgery

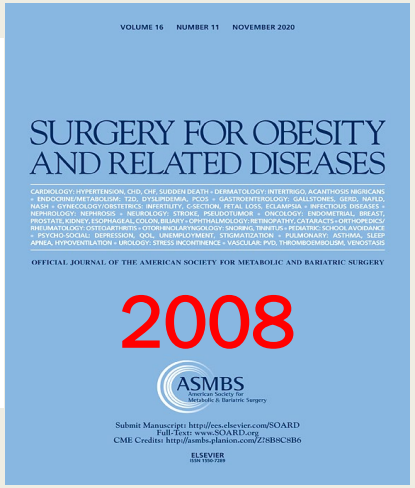
6596 pts **9442 pts**

Mean FU: 12.5 y

CANCER INCIDENCE	- 24%
CANCER MORTALITY	- 46%

Per 1,000 GBP ➡ 5.6 cancer deaths prevented

❑ AZIONE PREVENTIVA SULLA INSORGENZA ?



Original article

Bariatric surgery reduces cancer risk in morbidly obese patients

Nicolas V. Christou, M.D., Ph.D.[a,*], Moishe Lieberman, M.D.[a],
Fotini Sampalis, M.D., Ph.D.[a], John S. Sampalis, Ph.D.[a,b]

Pts 1035 Vs 5746

(811 gbp - 194 vbg)

	Bariatric	Control	Estimate	95% CI	value
Any cancer	21 (2.03)	487 (8.49)	.22	.143–.347	.001
Breast	12 (1.16)	362 (6.31)	.17	.098–.311	.001
Colorectal	2 (.19)	35 (.61)	.32	.076–1.313	.063
Pancreas	1 (.10)	19 (.33)	.29	.039–2.175	.166
Endometrial	3 (.29)	20 (.35)	.83	.246–2.779	.524
Kidney	0 (0)	6 (.10)	NC	NC	.369
Myeloma	0 (0)	7 (.12)	NC	NC	.313
Melanoma	2 (.19)	27 (.47)	.41	.097–1.723	.158
Non-Hodgkin's lymphoma	1 (.10)	11 (.19)	.50	.065–3.091	.432

80%

REDUCTION CANCER RISK

Within 5 Years

❑ AZIONE PREVENTIVA SULLA INSORGENZA ?

Obesity Surgery (2020) 30:1265–1272
https://doi.org/10.1007/s11695-019-04368-4

ORIGINAL CONTRIBUTIONS

Effects of Bariatric Surgery on Cancer Risk: Evidence from Meta-analysis

Kui Zhang[1] · Yupeng Luo[2] · Hao Dai[1] · Zhenhua Deng[1]

		N[a]	Case/control	OR (95%CI)	P[b]
Overall		23	304,516/8,492,408	*0.56 (0.48–0.66)*	<0.001
Outcome					
Incidence		13	218,546/7,763,028	*0.56 (0.46–0.68)*	<0.001
Mortality		10	92,951/739,503	*0.56 (0.41–0.75)*	<0.001
Cancer type					
Breast cancer		7	56,655/144,359	*0.49 (0.33–0.72)*	<0.001
Colorectal cancer		4	34,807/86,593	*0.82 (0.41–1.64)*	0.003
Endometrial cancer		4	29,631/78,598	*0.43 (0.26–0.71)*	0.010
Pancreatic cancer		3	29,829/81,615	0.70 (0.24–2.01)	0.068
Gastric bypass	Incidence	3	16,552/19,398	0.39 (0.11–1.33)	0.131
	Mortality	5	32,233/273,162	*0.47 (0.32–0.69)*	<0.001

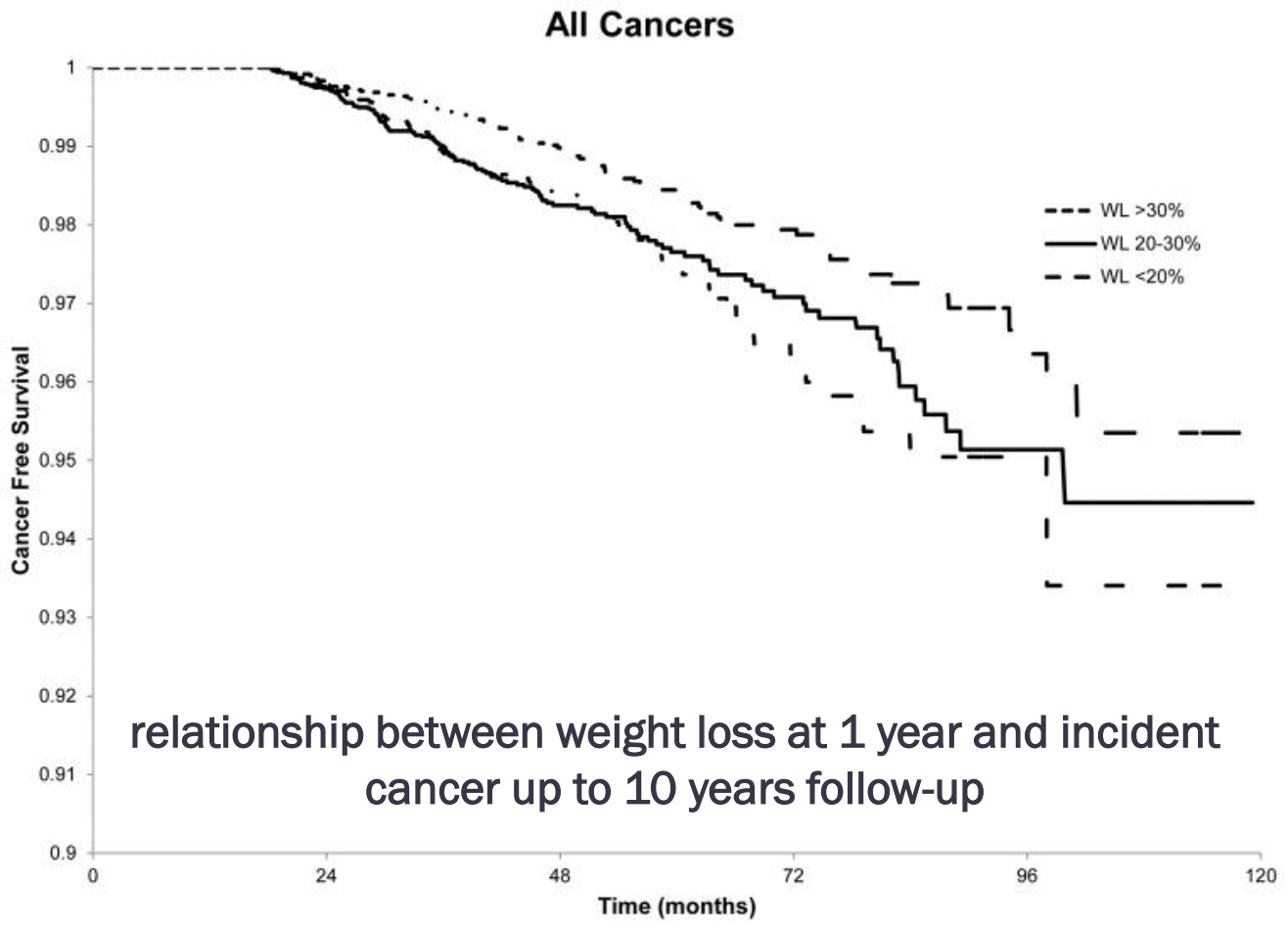
"Bariatric surgery for severe obesity was associated with decreased cancer risk, both for cancer incidence and mortality."

❑ QUAL E' IL MECCANISMO ?

Obesity (Silver Spring). 2017 November ; 25(Suppl 2): S52–S57. doi:10.1002/oby.22002.

Association between Weight Loss and the Risk of Cancer after Bariatric Surgery

Daniel P. Schauer, MD, MSc[1], **Heather Spencer Feigelson, PhD, MPH**[2], **Corinna Koebnick, MSc, PhD**[3], **Bette Caan, DrPH**[5], **Sheila Weinmann, PhD, MPH**[6], **Anthony C. Leonard, PhD**[7], **J. David Powers, MS**[2], **Panduranga R. Yenumula, MD**[5], and **David E. Arterburn, MD, MPH**[8]



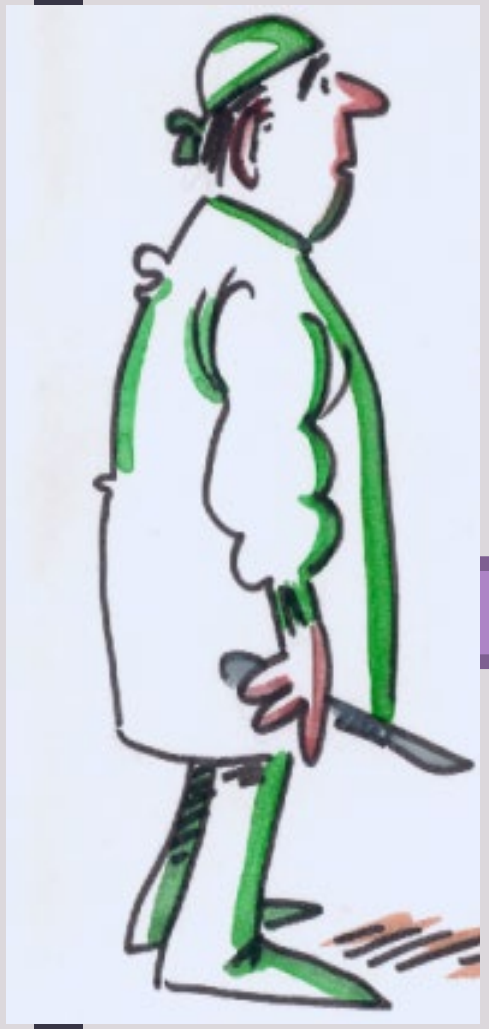
relationship between weight loss at 1 year and incident cancer up to 10 years follow-up

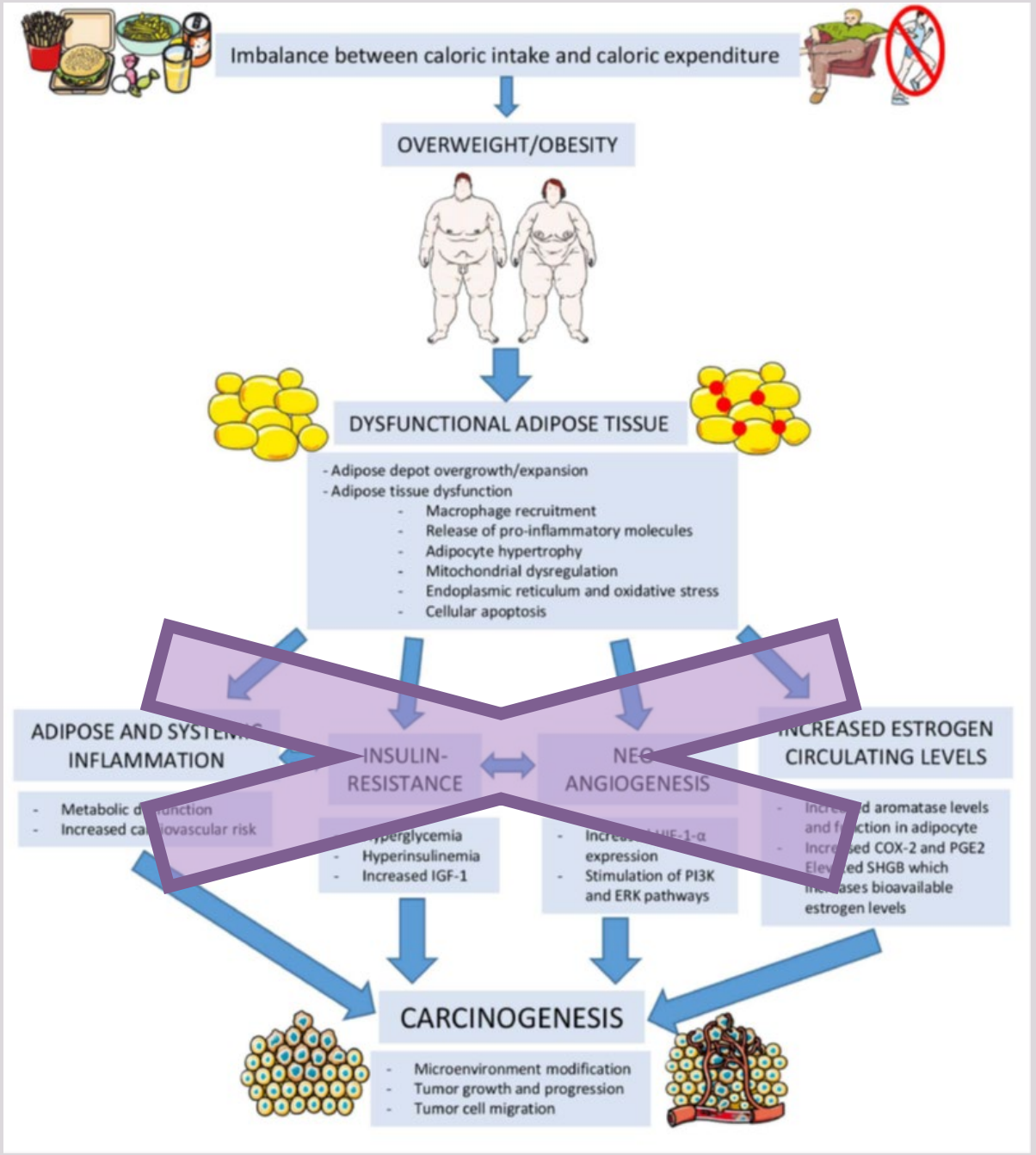
"Weight loss after bariatric surgery was associated with a lower risk of incident cancer."

Bariatric Surgery and Cancer risk explained by weight loss

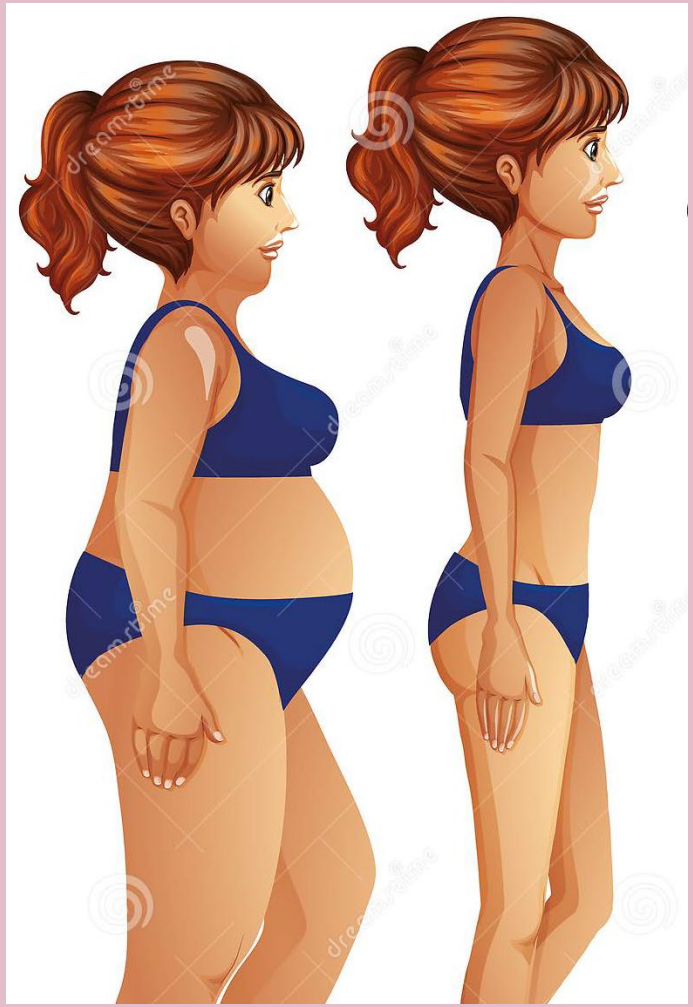
Not independently associated with surgery

❑ QUAL E' IL MECCANISMO ?



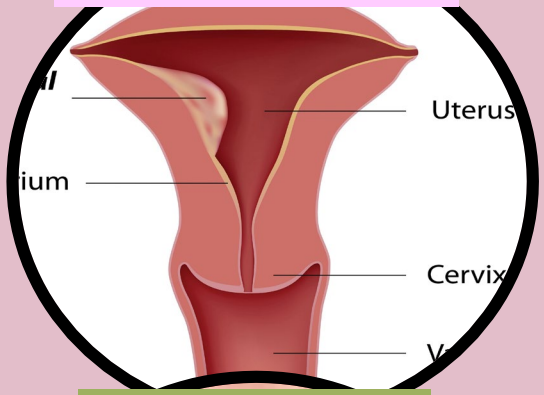


❑ CHI NE BENEFICIA MAGGIORMENTE ?

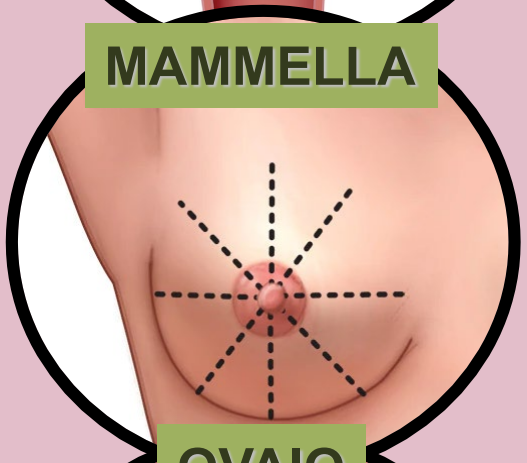


SESSO FEMMINILE

ENDOMETRIO

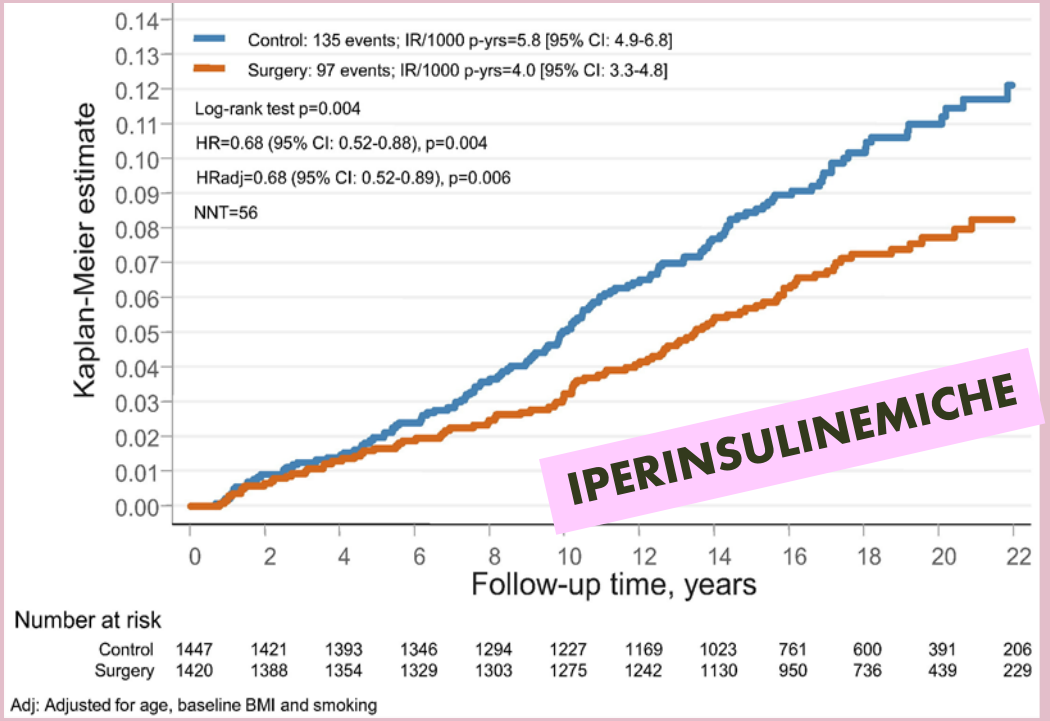


MAMMELLA



OVAIO

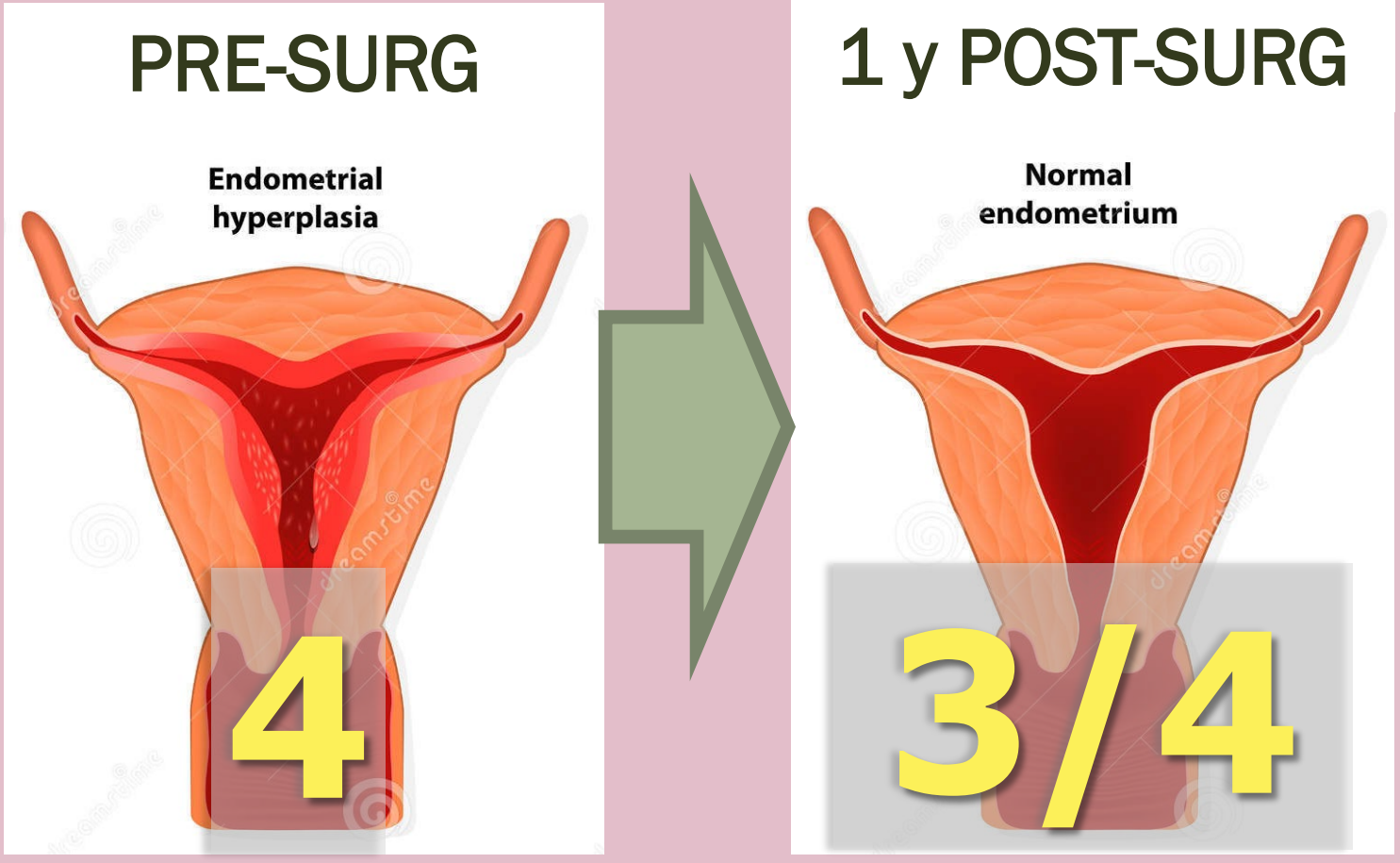
SOS STUDY
2867 WOMEN
M FU 18.1 y

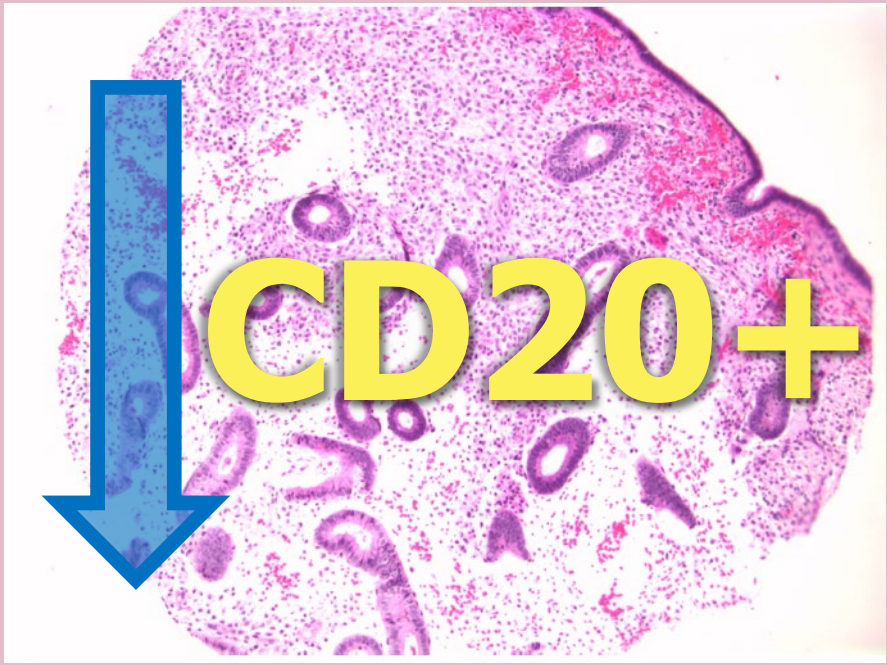


Gynecologic Oncology 145 (2017) 224–22

❑ CHI NE BENEFICIA MAGGIORMENTE ?

59 Obese Pts → ENDOMETRIAL BIOPSY

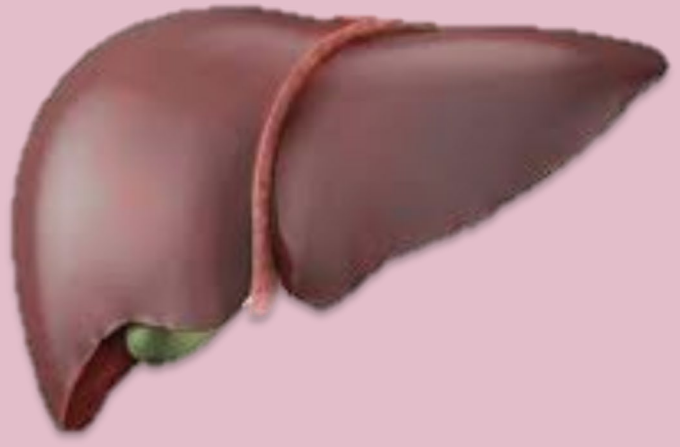




CHIRURGIA BARIATRICA PREVIENE CANCRO ENDOMETRIO

Linkov et al. Surg Obes Relat Dis 2014

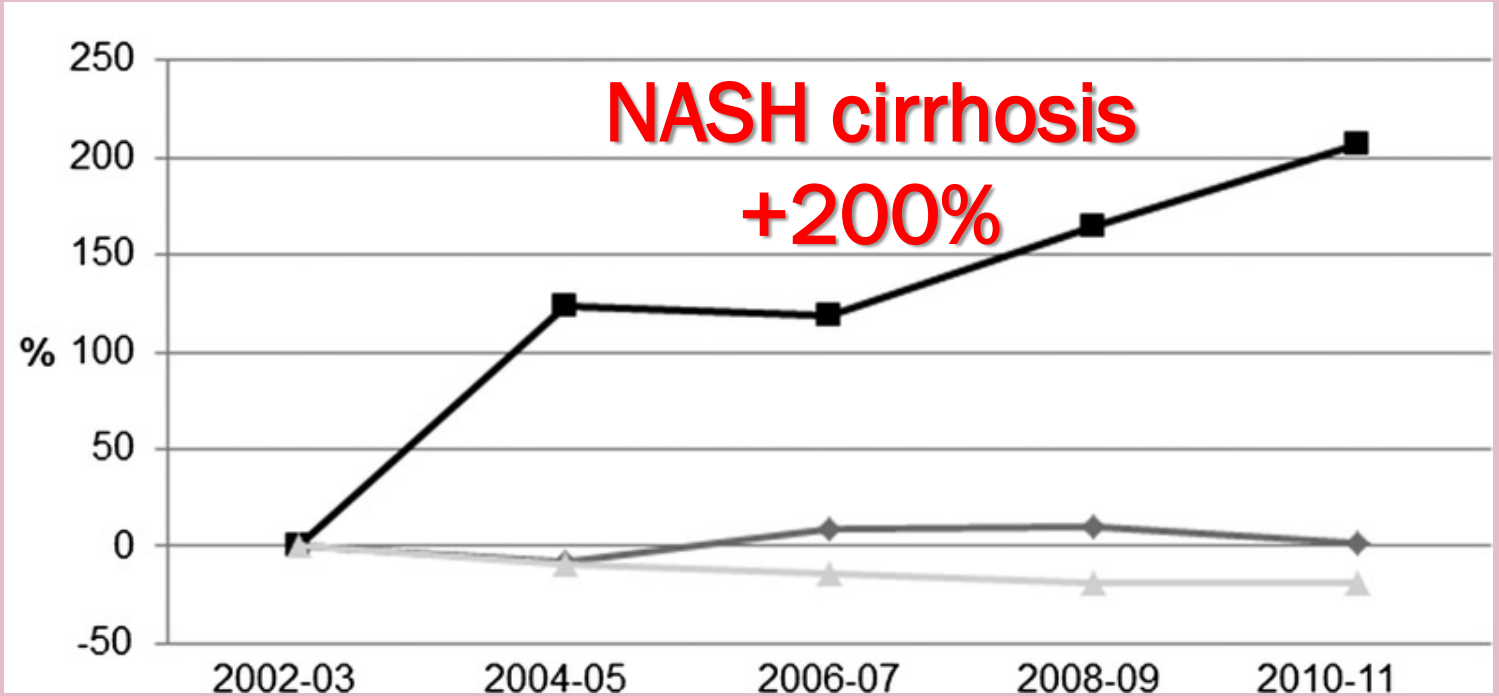
❑ CHI NE BENEFICIA MAGGIORMENTE ?



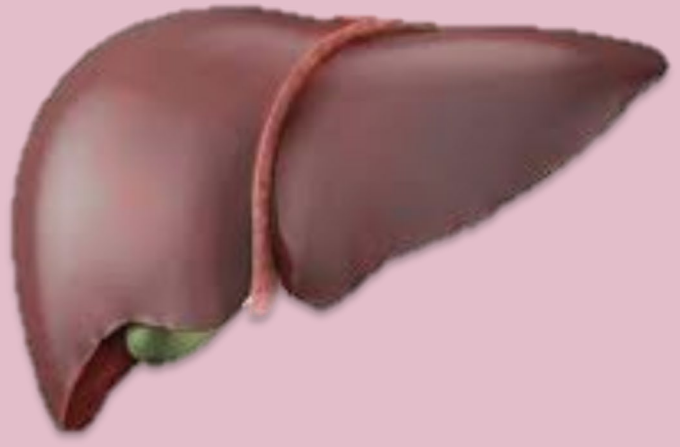
HEPATOLOGY
Official Journal of the American Association for the Study of Liver Diseases
AASLD

Nonalcoholic Steatohepatitis Is the Most Rapidly Growing Indication for Liver Transplantation in Patients With Hepatocellular Carcinoma in the U.S.

Robert J. Wong,[1,2] Ramsey Cheung,[1,2] and Aijaz Ahmed[1]



❑ CHI NE BENEFICIA MAGGIORMENTE ?

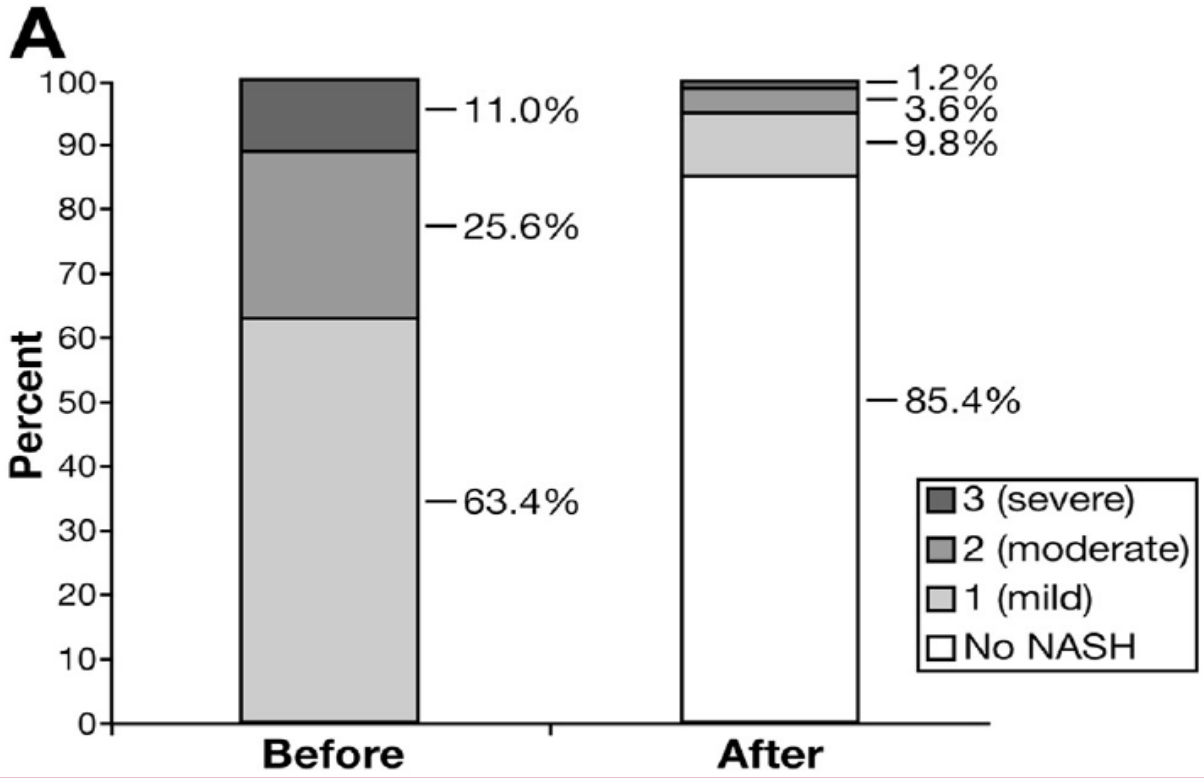


109 Obese Pts
1 y FU

Gastroenterology 2015;149:379–388

Bariatric Surgery Reduces Features of Nonalcoholic Steatohepatitis in Morbidly Obese Patients

Guillaume Lassailly,[1,2,*] **Robert Caiazzo**,[3,4,*] David Buob,[5] Marie Pigeyre,[6] Hélène Verkindt,[4] Julien Labreuche,[7] Violeta Raverdy,[4] Emmanuelle Leteurtre,[5] Sébastien Dharancy,[1,2] Alexandre Louvet,[1,2] Monique Romon,[6] Alain Duhamel,[7] François Pattou,[3,4] and Philippe Mathurin[1,2]



❑ IL PROBLEMA DELLO SCREENING

➢ *OBESITA' RIDUCE FREQUENZA E QUALITA'*

Mammography

- Discomfort « TOO MUCH PAIN ! »
- Breast density reduces accuracy

Elmore et Al. Arch Intern Med 200

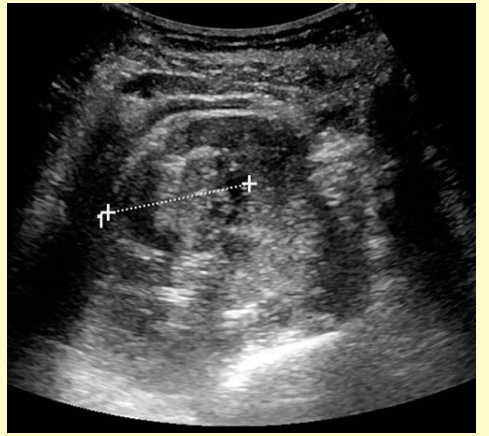
Colo-Rectal Cancer

- Endoscopy and FOBT -25%
- « EMBARRASSMENT ! »

Seibert RG, et Al Am J Prev Med 2017

➢ *RUOLO DEL WORK-UP PRE-OPERATORIO*

Ca renale diagnosticato in corso di eco per studio steatosi



CHIRURGIA BARIATRICA e NEOPLASIE

- AZIONE PREVENTIVA SULLA INSORGENZA ?

  CERTAMENTE SI !

- QUAL E' IL MECCANISMO ?

  PESO CORRELATO

- CHI NE BENEFICIA MAGGIORMENTE ?

  SESSO FEMMINILE

- IL PROBLEMA DELLO SCREENING

  PIU' SCREENING DOPO DIMAGRIMENTO E PERCORSO BARIATRICO

frontiers in Endocrinology

REVIEW
published: 15 April 2020
doi: 10.3389/fendo.2020.00213

Obesity Surgery and Cancer: What Are the Unanswered Questions?

Lidia Castagneto-Gissey[1], James Casella-Mariolo[1], Giovanni Casella[1] and Geltrude Mingrone[2,3,4]*

[1] Department of Surgical Sciences, Sapienza University of Roma, Roma, Italy, [2] Division of Diabetes & Nutritional Sciences, Fondazione Policlinico Universitario A. Gemelli IRCCS, Roma, Italy, [3] Division of Diabetes & Nutritional Sciences, Università Cattolica del Sacro Cuore Roma, Roma, Italy, [4] Division of Diabetes & Nutritional Sciences, Faculty of Life Sciences & Medicine, King's College London, London, United Kingdom

Obesity has become a global epidemic with a soaring economic encumbrance due to its related morbidity and mortality. Amongst obesity-related conditions, cancer is indeed the most redoubtable. Bariatric surgery has been proven to be the most effective treatment for obesity and its associated metabolic and cardiovascular disorders. However, the understanding of whether and how bariatric surgery determines a reduction in cancer risk is limited. Obesity-related malignancies primarily include colorectal and hormone-sensitive (endometrium, breast, prostate) cancers. Additionally, esophago-gastric tumors are growing to be recognized as a new category mainly associated with post-bariatric surgery outcomes. In fact, certain types of surgical procedures have been described to induce the development and subsequent progression of pre-cancerous esophageal and gastric lesions. This emerging category is of great concern and further research is required to possibly prevent such risks. Published data has generated conflicting results. In fact, while overall cancer risk reduction was reported particularly in women, some authors showed no improvement or even increased cancer incidence. Although various studies have reported beneficial effects of surgery on risk of specific cancer development, fundamental insights into the pathogenesis of obesity-related cancer are indispensable to fully elucidate its mechanisms.

Keywords: bariatric surgery, cancer incidence, mortality, hormone-sensitive cancer, gastroesophageal cancer

OPEN ACCESS

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INTRODUCTION

The incessant rise of obesity and overweight have configured a state of global epidemic, affecting 1.9 billion and 650 million adults worldwide by 2016, respectively (1). Overall mortality is increased by obesity and its related conditions (2). Amongst these, cancer is indeed the most redoubtable. High body mass index (BMI), namely BMI > 40 kg/m^2, has clearly been linked to a greater risk of both common a rare malignancy incidence and mortality rates (3, 4).

Obesity-related neoplasms primarily include colorectal and hormone-sensitive (endometrium, postmenopausal breast, prostate) cancers. Bariatric/metabolic surgery (BMS) has been extensively acknowledged to be the most efficacious treatment option for the cure of severe obesity and the number of procedures performed is exponentially growing globally (5–7) (**Figure 1**). Overall mortality has also been demonstrated to be decreased after BMS (8). On the contrary, it is uncertain whether BMS has any influence over cancer-related mortality.

It is certainly the remission of obesity that has been postulated to be at the basis of cancer incidence reduction or prevention (3, 9–11). Mechanisms involved in obesity-related cancer

ELSEVIER

SURGERY FOR OBESITY AND RELATED DISEASES

Surgery for Obesity and Related Diseases 16 (2020) 713–724

ASMBS Guidelines/Statements

ASMBS position statement on the relationship between obesity and cancer, and the role of bariatric surgery: risk, timing of treatment, effects on disease biology, and qualification for surgery

Saber Ghiassi, M.D.[a], Maher El Chaar, M.D.[b], Essa M. Aleassa, M.D.[c,d], Fady Moustarah, M.D.[e], Sofiane El Djouzi, M.D.[f], T. Javier Birriel, M.D.[g], Ann M. Rogers, M.D.[h,*], for the American Society for Metabolic and Bariatric Surgery Clinical Issues Committee

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[b]*Department of Bariatric Surgery, St. Luke's University Health Network, Allentown, Pennsylvania*
[c]*Department of General Surgery, Bariatric and Metabolic Institute, Cleveland Clinic, Cleveland, Ohio*
[d]*Department of Surgery, College of Medicine and Health Sciences, United Arab Emirates University, Al Ain, United Arab Emirates*
[e]*Ascension St. Mary's Hospital, Saginaw, Michigan*
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Received 13 March 2020; accepted 16 March 2020

Preamble

The following position statement is issued by the American Society for Metabolic and Bariatric Surgery in response to numerous inquiries made to the Society by patients, physicians, Society members, hospitals, health insurance payors, the media, and others, regarding the relationship between obesity and cancer. This includes the increased incidence of cancer in patients with obesity, how obesity can impact conventional cancer screening, recommended cancer screening before bariatric surgery, the beneficial impact of weight loss not only on future cancer risk but on prolonged survivorship after cancer treatment, the timing of cancer treatment related to bariatric treatment in specific patients, and whether patients with active cancers may, in fact, be considered for bariatric surgery despite older guidelines to the contrary. This statement will also discuss ethical issues related to patients who decline cancer screening before bariatric surgery. In this statement, a summary of current, published, peer-reviewed scientific evidence, and expert opinion is presented. The intent of issuing such a statement is to provide available objective information about these topics. The statement is not intended as, and should not be construed as, stating or establishing a local, regional, or national standard of care. The statement will be revised in the future as additional evidence becomes available.

Increased fat mass—particularly visceral fat—has been associated with an elevated incidence of a number of malignancies including cancers of the breast, endometrium, cervix, prostate, thyroid, stomach, liver, kidney, pancreas, gallbladder, and some ovarian subtypes [1–3]. Overweight and obesity are also found to be associated with esophageal adenocarcinoma, colon and rectal cancer, multiple myeloma, non-Hodgkin's lymphoma, and more recently melanoma [2,3]. GLOBOCAN, a comprehensive cancer surveillance database managed by the International Association of Cancer Registries, estimated in 2012 approximately 28,000 (3.5%) new cases of cancer in men and 72,000 (9.5%) in women were because of obesity as identified by elevated body mass index (BMI) [4]. This incidence

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https://doi.org/10.1016/j.soard.2020.03.019