

SURVIVORSHIP: KEY CONSIDERATIONS WHEN BUILDING A BREAST CANCER PROGRAM

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City of Hope National Medical Center



Disclosures

Consultant for AstraZeneca, GlaxoSmithKline, Incyte, Mesoblast, Novartis, Pfizer, and Puma Biotechnology.



Breast Cancer Survivors – The challenges

- After completion of active therapy, patients often feel abandoned
- Breast cancer survivors are the largest population of cancer survivors
 - Even if cured, are at high risk



Reasons to have physicians follow survivors

- Longstanding relationship and understanding of the individual's disease
- Helps us understand longterm complications of therapy
- Make us “feel good”



Reasons to transition patients to other caregivers

- Opens up space in crowded clinics
- Ability to see newly diagnosed patients sooner
- Provides a focused clinic for care and research
- Allows for more general medical attention

Commission on Cancer focus on Survivorship



- Created mandates for the use of Treatment Summaries and Survivorship Care Plans
 - Started with 15%
 - Increased to 50%



1500 East Duarte Road, Duarte, CA 91010

City of Hope Center for Cancer Survivorship

Treatment Summary

PATIENT INFORMATION

Name: [REDACTED]	DOB: [REDACTED]	MRN: [REDACTED]	Race/Ethnicity: Caucasian, Non-Hispanic
Address: [REDACTED]			Phone: [REDACTED]

CLINICAL INFORMATION

Diagnosis 1: Right Breast Cancer, Infiltrating ductal carcinoma with minor DCIS			
Date of Diagnosis: 9/1/2008	Age at Diagnosis: 58 years	Definitive Surgery Date: 10/10/2008	
Pathologic Stage: IIIA, T3, pN2a, M0		Oncotype DX score: N/A	
ER Status: Negative	PR Status: Negative	HER2 Status: Positive	
Comorbid Conditions: Skin cancer in 1996			
Family History: None/Remote family history			Genetic Test: N/A
Echocardiogram or MUGA result prior to chemotherapy: EF = 69 % 10/23/2008			

TREATMENT INFORMATION

SURGERY				
Procedure	Date	Surgeon	Institution	Comments
Ultrasound guided biopsy of right breast and right lymph node	9/30/2008	Carol Wong, MD	City of Hope	13 nodes removed/ 5 nodes positive
Right Axillary Node Dissection	10/10/2008	Laura Kruper, MD	City of Hope	
Right Mastectomy	10/10/2008	Laura Kruper, MD	City of Hope	
Breast Reconstruction: DIEP flap	6/22/2010	Sharon Clancy, MD	City of Hope	

CHEMOTHERAPY REGIMEN SUMMARY

Regimen/Protocol: Adjuvant AC + Taxol		
Date Initiated: 10/23/2008	Date Completed: 2/20/2009	On-Study: No
Treating Institution: City of Hope		Health Care Provider: Joanne Mortimer, MD

CHEMOTHERAPY & BIOLOGICAL THERAPY

Includes Neoadjuvant? No

Drug Name	Route	Cumulative Dose	Units	# of cycles given	% dose reduction
Doxorubicin	IV	240	mg/m2	4	0
Cyclophosphamide	IV	2400	mg/m2	4	0
Paclitaxel	IV	175	mg/m2	1	N/A
Abraxane	IV	514	mg/m2	2	N/A
Received Herceptin?	Start Date	Stop Date	Pre-therapy ejection fraction		Most recent ejection fraction
Yes	1/20/2009	6/30/2009	69	10/23/2008	62 4/7/2009

RADIATION

Site/Field	Start Date	Stop Date	Fractions	Total Dose	Units
Right supraclavicular	4/15/2009	5/22/2009	28	50.4	Gy
Right chest wall	4/15/2009	5/22/2009	28	50.4	Gy
Right chest wall boost	5/26/2009	6/1/2009	5	10	Gy

Radiation Oncologist: Nayana Vora, MD Institution: City of Hope



**City of
Hope**

1500 East Duarte Road, Duarte, CA 91010

City of Hope Center for Cancer Survivorship Treatment Summary

FOLLOW-UP AND SURVIVORSHIP CARE

Follow-up care	When/How Often?	Coordinating Provider
Breast survivorship clinic visits	Yearly	Helene Zonder, NP
Primary oncologist visits	Recommendation to be made by oncologist	Joanne Mortimer, MD
Primary Care Visits	As needed for routine screening, disease prevention, and management of co-morbidities	Primary Care Provider

Potential late effects of treatment: See Survivorship Care Plan

ONCOLOGY TEAM MEMBER CONTACTS

Oncologist	Provider
Name: Joanne Mortimer, MD	Name: Helene Zonder, Nurse Practitioner
Contact Info: 626-256-4673 ext 69200	Contact Info: 626-471-7341
RN	Clinical Research Assistant
Name: Sandra Helton	Name: Meghan Zomorodi
Contact Info: 626-256-4673 ext 69200	Contact Info: 626-471-7341

OTHER CARE TEAM MEMBER CONTACTS

Title	Title
Name:	Name:
Contact Info:	Contact Info:
Title	Title
Name:	Name:
Contact Info:	Contact Info:

SPECIFIC HEALTH CARE RECOMMENDATIONS PROVIDED

Prevention and Wellness

National Cancer Institute:

Facing Forward

National Institute of Health:

What Breast Cancer Survivors Need to Know about

Osteoporosis

Menopausal Symptoms and CAM

City of Hope:

Eat Your Way to a Healthier Heart

Vaccinations for Adults

U.S. Department of Health:

Women: Stay Healthy at Any Age

Screening

American Cancer Society:

Colon Cancer Prevention

After Diagnosis: A Guide for Patients and Families

REFERRALS PROVIDED:

- ☐ Dietician
- ☐ Physical therapist
- ☐ Psychologist
- ☐ Social worker
- ☐ Smoking cessation counselor
- ☐ Other: _____

SURVIVORSHIP CARE PLAN

POTENTIAL LATE SIDE EFFECTS	RECOMMENDATIONS	LINKS
Potential for Recurrence of Breast Cancer	<ul style="list-style-type: none"> Your medical oncologist will discuss the timing and frequency of your mammograms. Perform a breast self-exam every month. This is not a substitute for a mammogram. You should have a history and physical examination every 3-6 months for the first 3 years after treatment, then every 6-12 months for the next 2 years and then annually. Report any new lumps, bone pain, chest pain, shortness of breath, abdominal pain, or persistent headaches. 	<p>American Cancer Society: Living with Uncertainty: The Fear of Cancer Recurrence http://www.cancer.org/docroot/MLT/content/MLT_4_1x_Living_With_Uncertainty_-_The_Fear_of_Cancer_Recurrence.asp</p>
Potential for Fatigue	<p>Fatigue is one of the most common complaints of people diagnosed with cancer and cancer survivors. Although fatigue is frequently an expected, temporary side effect of treatment, other factors may cause it to continue. Fatigue is complex, and has biological, psychological and behavioral causes. It is often expressed in different ways, such as feeling tired, weak, exhausted, weary, worn-out, heavy or slow. You may find that you tire more quickly when doing routine tasks or lack the energy for the activities you used to enjoy.</p> <ul style="list-style-type: none"> Discuss with your health care provider if you are experiencing fatigue, and ask for information about fatigue related to underlying causes such as sleep disorders and inactivity, anxiety, depression, social and financial stressors, medications, eating habits and side effects of other health conditions. Pay attention to your sleep habits; sleep at least 7-9 hours per night. Maintain a comfortable balance between activity and rest Exercise most days of the week Eat a healthy diet. 	<p>Cancer National Institute- Fatigue http://www.cancer.gov/cancer topics/pdq/supportivecare/fatigue/patient</p>
Potential for Problems with Employers, Insurability, and Continuity of Care	<ul style="list-style-type: none"> Maintain your health insurance Review your employer's health benefits concerning major illness. Share your treatment summary with all members of your health care team Know your insurance and/or MediCare coverage Review medicolegal issues, such as family leave and disability options (FMLA and ADA). Talk with your health care provider about their recommendations for limitations and/or return to work. 	<p>National Institute on Aging (NIH): <i>Choosing a Doctor</i> www.nia.nih.gov/HealthInformation/Publications/choosing.htm www.cancerandcareers.org www.eeoc.gov</p>
Potential for Psychosocial Distress and Depression	<ul style="list-style-type: none"> Seek professional help if you are having emotional issues Studies have shown that exercise and movement is beneficial for depression and emotional distress. 	<p>CancerCare Online Support http://supportgroups.cancer.org/ Telephone Support Groups: CancerCare 1-800-813-4673 City of Hope Biller Patient and Family Resource Center: 626-256-4673 X32273</p>

<p>Potential for Menopausal Symptoms</p>	<p>Premenopausal women treated for breast cancer often enter a premature menopause, with resulting loss of childbearing capacity and menopausal symptoms.</p> <ul style="list-style-type: none"> • Keep track of the symptoms you're experiencing. For instance, write down how many hot flashes you experience in a day or a week and how severe they are. This will aid you in your discussions with your health care provider. • Cool hot flashes. Get regular exercise, dress in layers and try to pinpoint what triggers your hot flashes. Keep the thermostat low, use portable fans at your desk and bedside, and replace hot beverages with cold ones. • Optimize your sleep. Avoid caffeine and plan to exercise during the day. • Eat a balanced diet. Heavier women have more hot flashes. • Don't smoke (nonsmokers have fewer vasomotor symptoms than do smokers). • Get at least 30 minutes of moderate-intensity physical activity on most days. • Always talk with your health care provider about any alternative medications you may be considering for menopausal symptoms as they may not be appropriate for women who have been treated for breast cancer. 	<p>Managing Menopausal Symptoms, www.breastcancer.org/tips/menopausal/</p>
<p>Potential for Memory and Thinking Problems</p>	<p>Often called "chemobrain", this side effect of chemotherapy causes some people to have trouble remembering simple things.</p> <ul style="list-style-type: none"> • Try using a detailed daily planner • Get enough rest and sleep • Regular physical exercise can be beneficial. • Set up and follow routines. Try to keep the same daily schedule. • Don't try to multi-task. Focus on one thing at a time • Track your memory problems. Keep a diary of when you notice problems and the events that are going on at the time. Medicines taken, time of day, and the situation you are in may help you figure out what affects your memory. 	<p>American Cancer Society: <i>Chemo Brain</i> http://www.cancer.org/docroot/MBC/content/MBC_2_3x_Chemobrain.asp</p>
<p>Obesity/High Cholesterol</p>	<ul style="list-style-type: none"> • A healthy weight depends on a person's height, so recommendations for a healthy weight are often expressed in terms of body mass index (BMI). BMI is a measure of body fat based on height and weight. • Keep your weight down. Women who are overweight are more likely to get cancers of the colon, esophagus and kidney. • Obesity and overweight increase the risk for serious medical conditions: diabetes, fatty liver, gallbladder disease, gastroesophageal reflux (GERD), gout, osteoarthritis, coronary artery disease, hypertension, stroke and sleep apnea. • Eat a healthy diet each day: <ul style="list-style-type: none"> -five or more servings of fruit and vegetables -high fiber food (whole grain breads, pastas, cereal, rice, etc.) -choose fish, turkey, chicken, and beans; limit red meats -limit fried food, high sugar foods -eat high calcium food (milk products including yogurt, cheese, and dark green vegetables -eat low fat foods • Exercise for at least 30 minutes most days of the week 	<p>American Cancer Society: <i>Food and Fitness</i> www.cancer.org/docroot/PE/ped_3.asp?sitearea=PED</p>

Systematic Review of the Impact of Cancer Survivorship Care Plans on Health Outcomes and Health Care Delivery

Paul B. Jacobsen, Antonio P. DeRosa, Tara O. Henderson, Deborah K. Mayer, Chaya S. Moskowitz, Electra D. Paskett, and Julia H. Rowland

- 11 randomized and 13 non-randomized trials address survivorship care plans
- Randomized trials did not show benefit for improving physical, functional, and psychological well-being.

Conclusion

Existing research provides little evidence that SCPs improve health outcomes and health care delivery. Possible explanations include heterogeneity in study designs and the low likelihood that SCP delivery alone would influence distal outcomes. Findings are limited but more positive for proximal outcomes (eg, information received) and for care delivery, particularly when SCPs are accompanied by counseling to prepare survivors for future clinical encounters. Recommendations for future research include focusing to a greater extent on evaluating ways to ensure SCP recommendations are subsequently acted on as part of ongoing care.



Goal of a Survivorship Care Model

- To provide evidence-based data for the addressing the complications of therapy
- Ensure appropriate surveillance for second malignancies
- Address lifestyle issues
- Provide an opportunity to study treatment related effects

Physical and Psychosocial Longterm and Late Effects of Cancer Treatment



- Lymphedema
- Cardiotoxicity
- Infertility
- Bone health
- Pain and neuropathy
- Musculoskeletal health
- Premature menopause
- Body image concerns
- Distress, depression, anxiety
- Fatigue
- Cognitive Impairment
- Health promotion
- Sexual health

Survivorship Website

cityofhope.sharepoint.com/teams/Survivorship



S

Survivorship

Public group ☆ Not following 15 members

Home

COH Survivorship Invento...

Survivorship Services Que...

Resources for Cancer Sur...


Resources for Providers

Sexual Health Work Group


Exercise & Lifestyle Work ...

Financial & Legal Resourc...

Recycle bin



WELCOME TO CITY OF HOPE'S SURVIVORSHIP SHAREPOINT PAGE, WHICH SERVES AS A HUB FOR ALL THINGS RELATED TO CANCER SURVIVORSHIP.



Misc Survivorship Documents

Thriving After Cancer Flyer - Summer 2021

LC


Lauren Creel
Modified on Jun 22, 2021

[Click here to view & download the Thriving](#)

ANNOUNCING THRIVING AFTER CANCER

monthly webinars for cancer survivors

City of Hope. HOME AGENDA SPEAKERS FAQ



THRIVING AFTER CANCER

Join our City of Hope experts as we explore challenges in survivorship and ways to overcome them.


[Register](#)

ABOUT THRIVING AFTER CANCER

Learn more about the challenges you may face after treatment ends and gain tips from City of Hope experts on how to take control of your life and truly thrive after cancer.

Sessions are held on the third Wednesday of every month from 5:30-6:30 pm.

[click here to visit the Thriving After Cancer registration website](#)

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Resources for Cancer Survivors




Education, Support, and Resources for Cancer Survivors




Community Resources for Cancer Survivors




Local, National, and Internet Resources




ASCO Answers: Cancer Survivorship




ASCO Answers: Cancer Survivorship (Spanish)




NCI Facing Forward: Life After Treatment




Five Tips to Choose a New Primary Care Doctor



Young Adult Toolkit: Information & Resources for 15- to 39-year-olds with...



Caregiver Support and Resources

 City of Hope.

15





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- Mental Health
- Nutrition and Healthy eating
- Physical Activity and Wellness
- Sexual Health & Fertility
- Sleep
- Complementary Medicine
- Surveillance & Cancer Prevention
- Advance Directive

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Resources for Providers




City of Hope Survivorship Care Handbook



Survivorship Care Plan Epic Tip Sheet


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Comments



Add a comment. Type @ to mention someone

Post

 City of Hope.

17

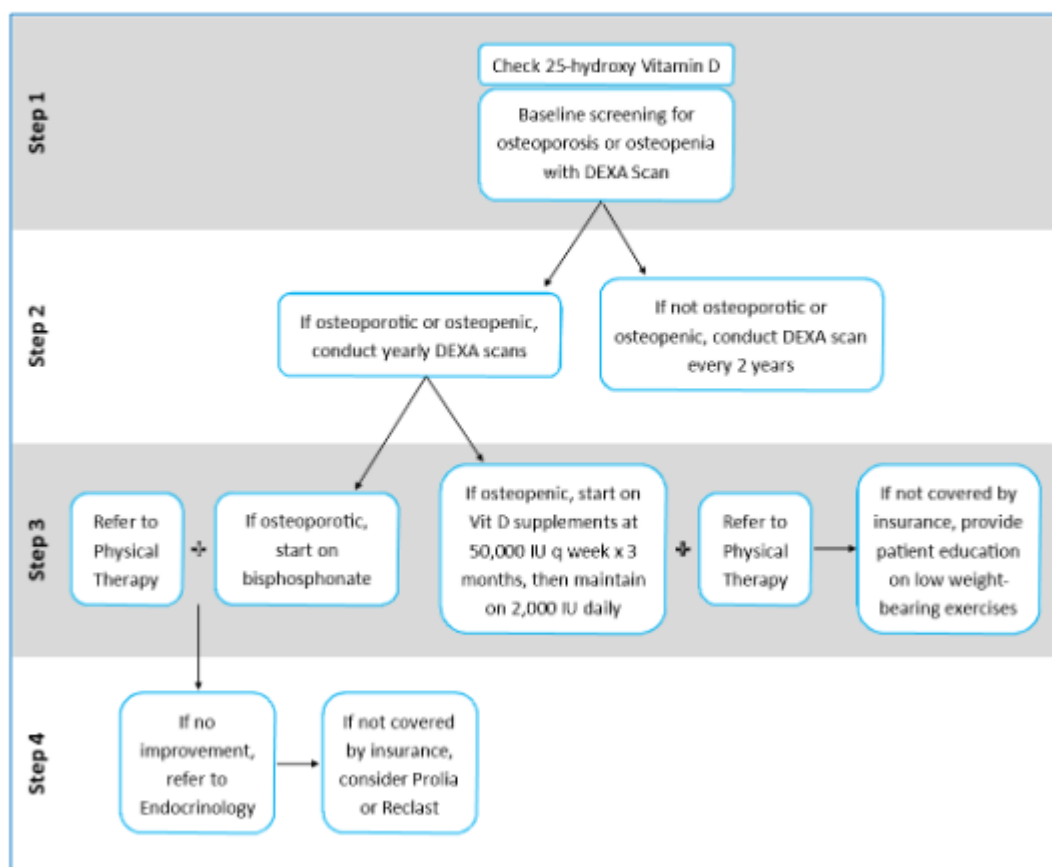


CITY OF HOPE SURVIVORSHIP CARE HANDBOOK

Lauren Creel, MSW, MPH
Brittany Bradford, MSN, NP
Joanne Mortimer, MD

the **MIRACLE** of **SCIENCE** ... **SOUL** City of Hope

FOR PATIENTS ON AN AROMATASE INHIBITOR OR ANDROGEN DEPRIVATION THERAPY



cityofhope.sharepoint.com/teams/Survivorship



Survivorship Work Groups



Sexual Health Work Group



Exercise & Lifestyle Work Group



Financial & Legal Resources Work Group

Prevalence of treatment-related symptoms in patients following (neo)adjuvant endocrine therapy with or without chemotherapy



Women with Stage I-III breast cancers after completion of (neo)adjuvant therapy



Completion of tablet-based Survivorship SupportScreen® with 25 biopsychosocial questions

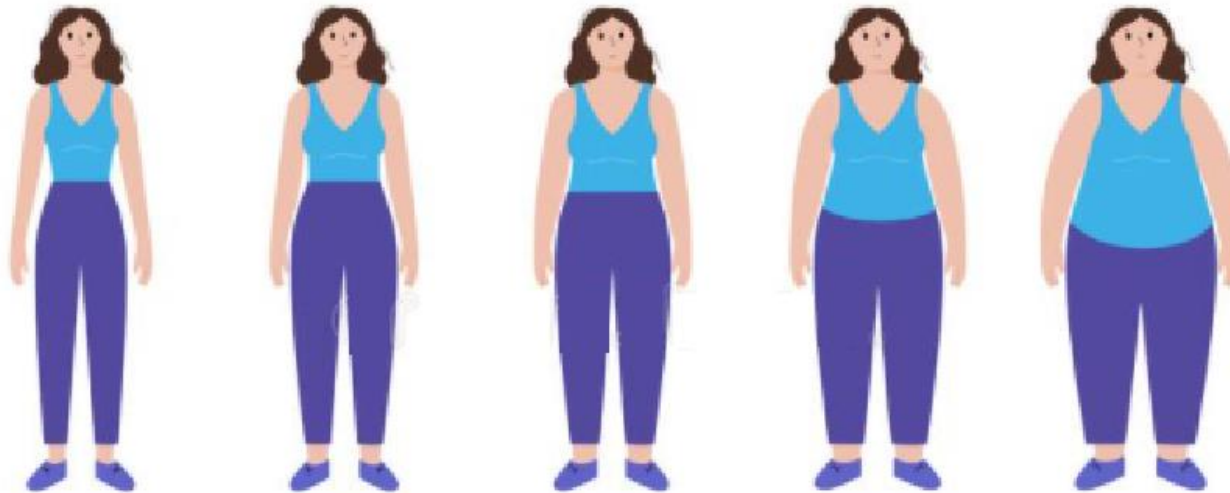


Prevalence of treatment-related symptoms



	CT+ET N=113	ET alone N=91	P- value
Mean age	54.8 years	60.89 years	<0.001
Fatigue	81/110 (73.64%)	65/88 (73.86%)	0.971
Worry about recurrence	77/113 (68.14%)	60/91 (65.93%)	0.739
Sleeping	70/112 (62.5%)	51/91 (56.04%)	0.351
Not being physically active	67/110 (60.9%)	50/89 (56.18%)	0.500
Neuropathy	64/113 (56.64%)	29/91 (31.87%)	<0.001
Pain	62/112 (55.36%)	43/90 (47.78%)	0.284
Hot flashes	61/113 (53.98%)	52/91 (57.14%)	0.652
Thinking clearly	53/111 (47.75%)	38/89 (42.7%)	0.476
Vaginal dryness	47/113 (41.59%)	31/91 (34.07%)	0.271
Gained weight	45/113 (39.82%)	34/91 (37.36%)	0.720

BODY MASS INDEX



<18.5	18.5–24.9	25–29.9	30–39.9	40
Underweight	Normal weight	Overweight	Obesity	Extreme Obesity

	All (Men and Women)	Men	Women
Overweight or Obesity	70.2	73.7	66.9
Overweight	32.5	38.7	26.5
Obesity (including extreme obesity)	37.7	35	40.4
Extreme obesity	7.7	5.5	9.9

Weight gain after breast cancer diagnosis and mortality



Table 2. Comparison of meta-analysis results: fixed vs random effects*

Comparison	Subgroup	HR (95% CI)	Fixed effects		Chi ² P†	HR (95% CI)	Random effects	
			P‡	I ² (%)			P‡	Tau ²
Weight gain >5.0% and all-cause mortality	—	1.12 (1.03 to 1.22)	.01	55.0	.02	1.17 (1.01 to 1.36)	.03	0.03
Weight gain and all-cause mortality, stratified by level of weight gain	5–10.0%	0.97 (0.86 to 1.11)	.69	0.0	.98	0.97 (0.86 to 1.11)	.69	0.00
	>10.0%	1.23 (1.09 to 1.39)	<.001	62.0	.03	1.33 (1.05 to 1.67)	.02	0.04
Weight gain >5.0% and all-cause mortality, stratified by prediagnosis BMI	BMI < 25	1.14 (0.99 to 1.31)	.07	0.0	.80	1.14 (0.99 to 1.31)	.07	0.00
	BMI ≥ 25	1.00 (0.86 to 1.16)	.96	23.0	.27	1.02 (0.84 to 1.23)	.86	0.01
Weight gain and breast cancer-specific mortality, stratified by level of weight gain	5–10.0%	0.98 (0.83 to 1.15)	.77	0.0	.99	0.98 (0.83 to 1.15)	.77	0.00
	>10.0%	1.17 (1.00 to 1.38)	.05	46.0	.12	1.31 (1.00 to 1.71)	.05	0.04
Weight gain >5.0% and breast cancer recurrence	—	0.93 (0.77 to 1.13)	.46	52.0	.12	0.97 (0.70 to 1.34)	.85	0.04

* — = not applicable; BMI = body mass index; CI = confidence interval; HR = hazard ratio.

† The P values were calculated from Chi² test for heterogeneity. All tests were two-sided (P < .05).

‡ The P values were calculated from Tau² test for heterogeneity. All tests were two-sided (P < .05).

Weight gain after breast cancer diagnosis and mortality



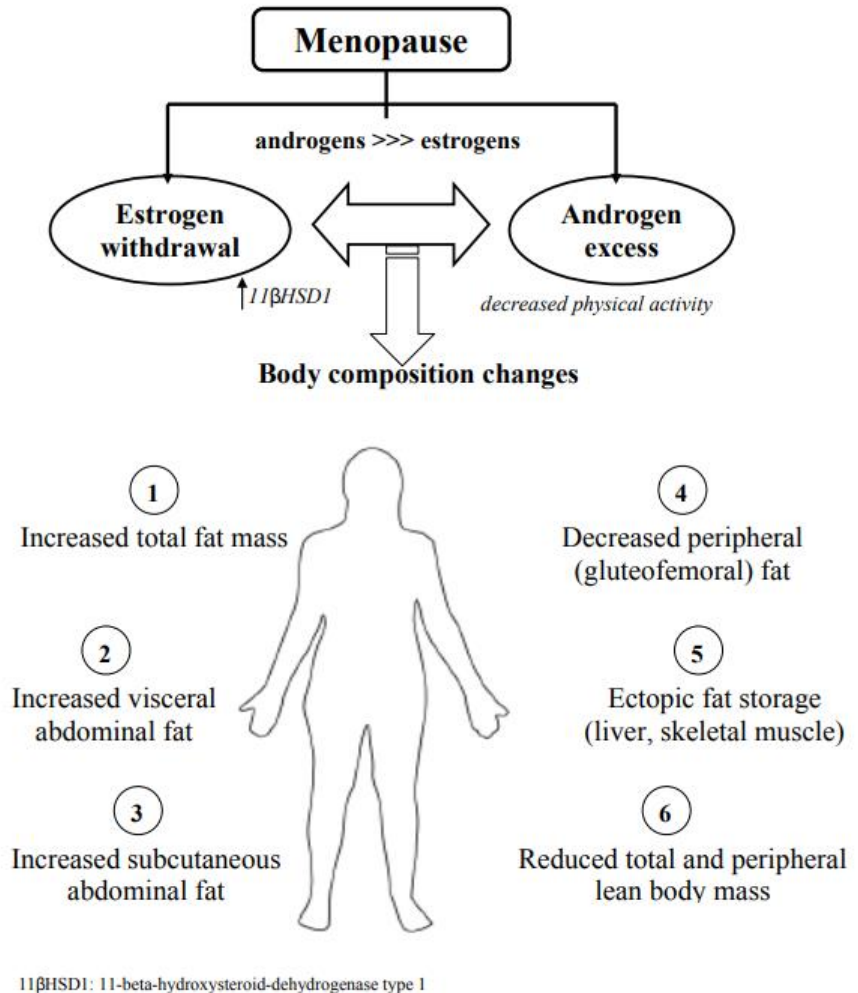
- Wt gain $\geq 5\%$ vs $< 5\%$ \uparrow all cause mortality
- 5-10% weight gain NS
- $\geq 10\%$ weight gain associated with \uparrow all cause mortality (HR=1.23) NO increase in cancer-specific mortality

What is the impact of body composition?

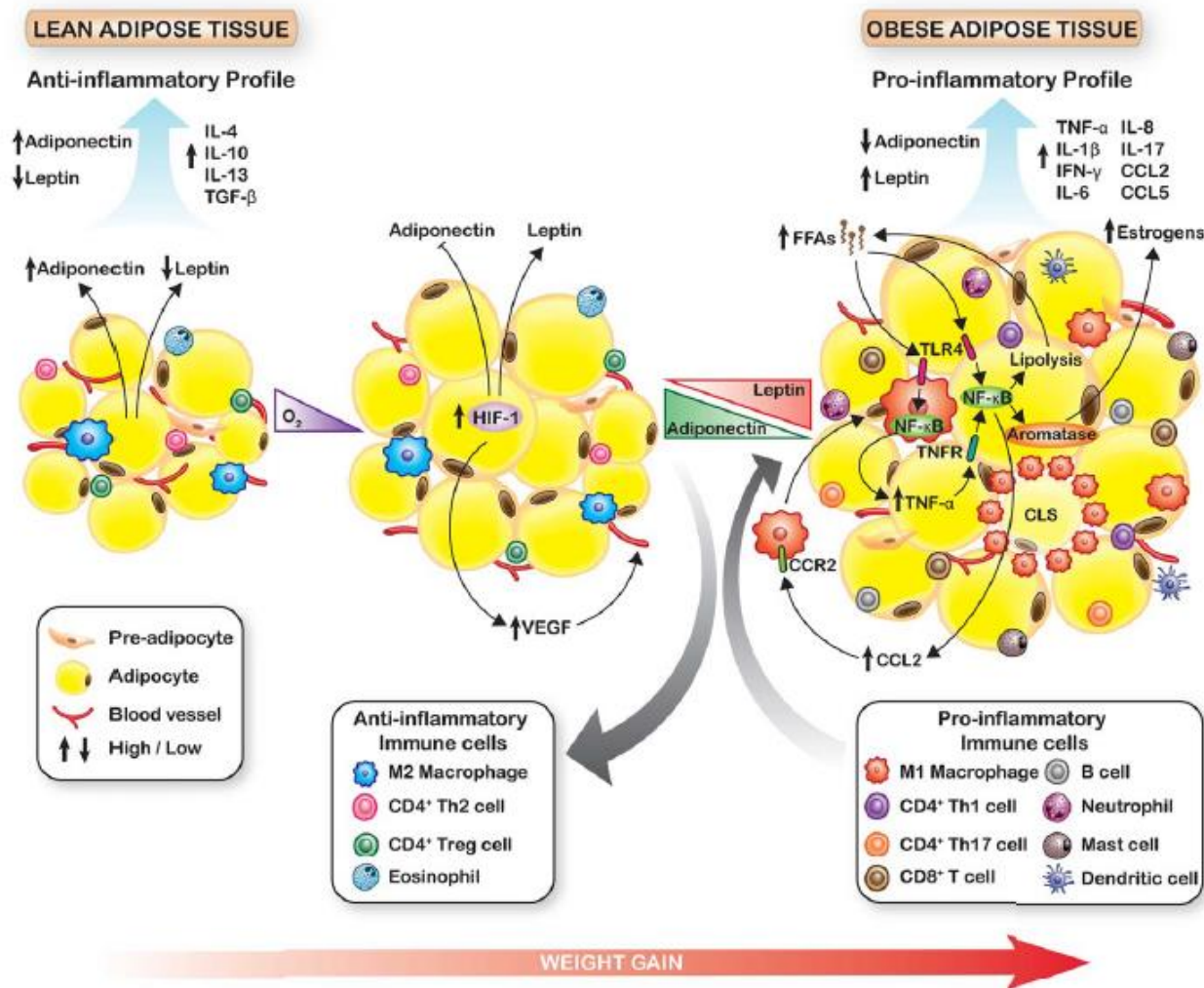


Shape shifting

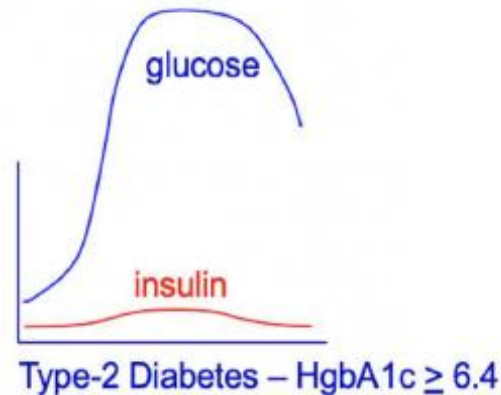
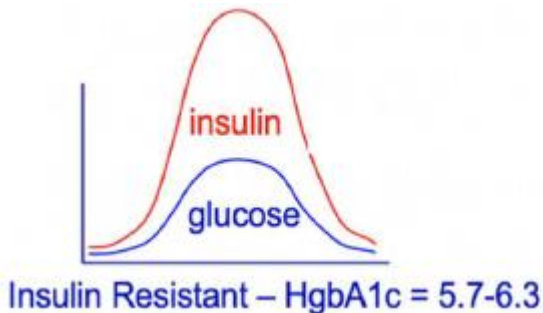
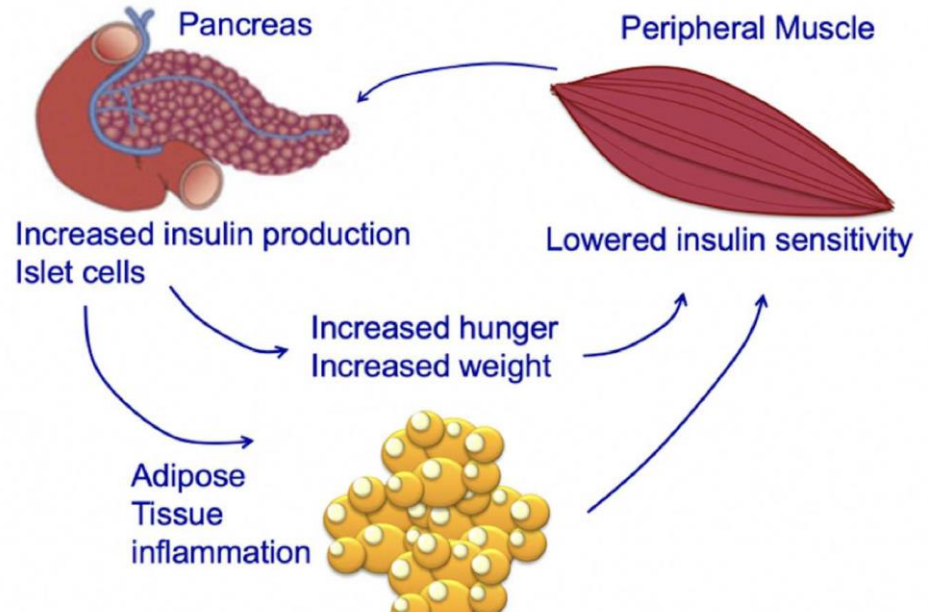
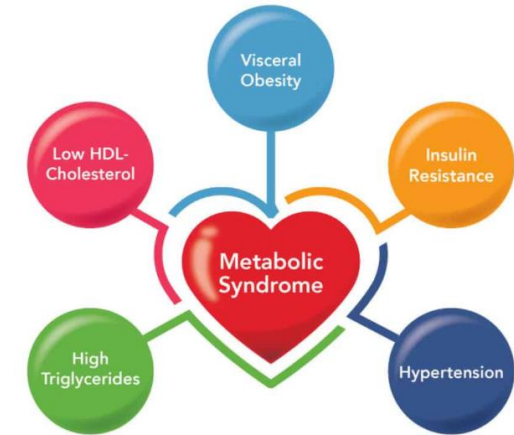
Changes in body composition changes induced by menopause



Changes in Adipose Tissues with Weight Gain



Metabolic Syndrome and Type 2 Diabetes

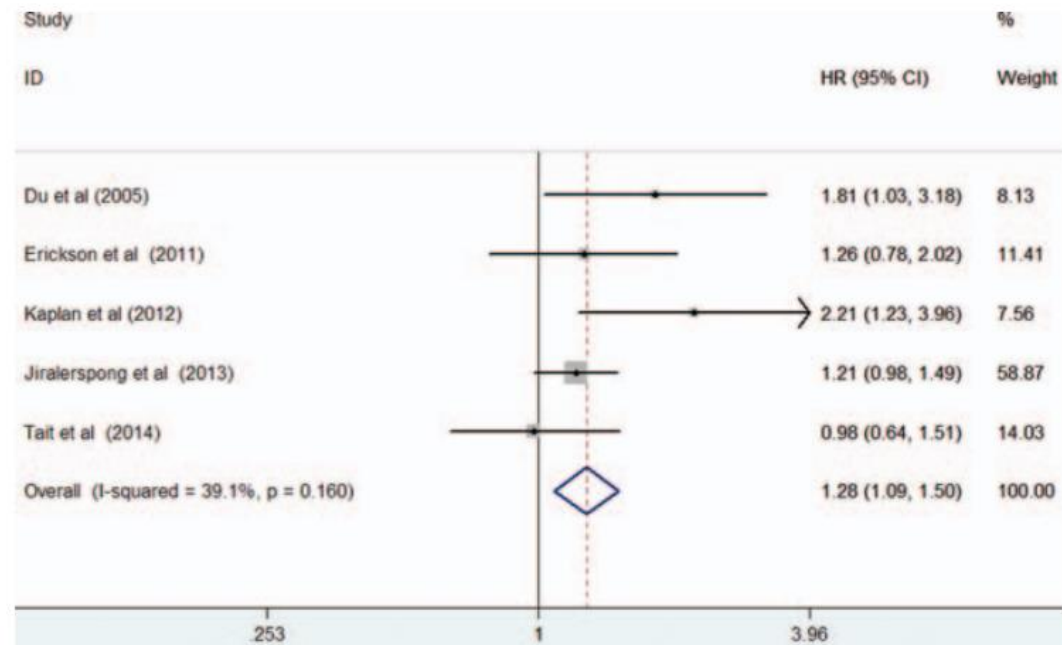




Diabetes and worse outcomes

- Meta-analysis of 17 studies with 48,315 women with breast cancer

DFS by diabetes or not



- Diabetes is independently associated with poor overall survival and DFS in female breast cancer patients



Shape shifting in breast cancer patients

- Menopause
 - Chemotherapy castration effects
- Endocrine therapy
 - Tamoxifen
 - Aromatase inhibitors
- Aging
- Chemotherapy?

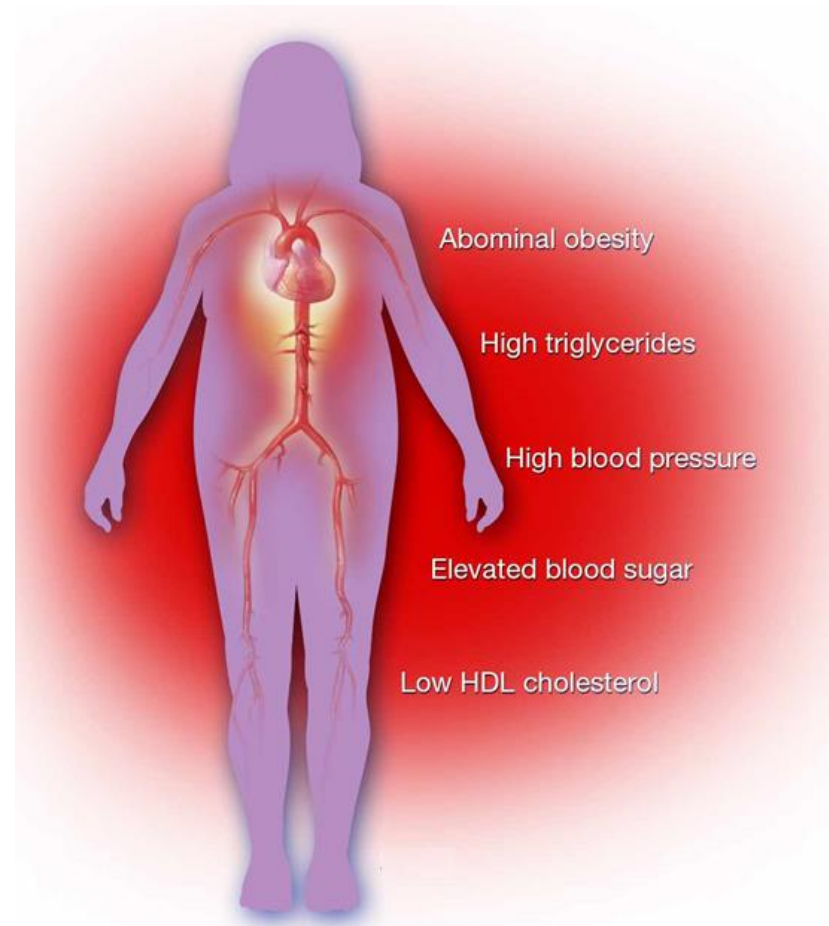




Metabolic Syndrome and Chemotherapy

Why should an oncologist care about Metabolic Syndrome?

- Health and well-being
- Higher incidence of cancer
- Disease outcome
- Quality of Life



Does chemotherapy cause Metabolic Syndrome in women without Metabolic Syndrome?



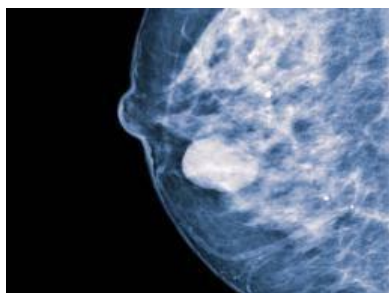
Screened 963 women

Only 157 did not have Metabolic Syndrome

86 Consented

Before

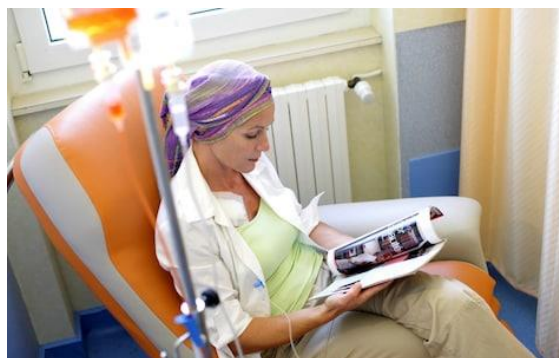
Chemo



Blood pressure
Bloodwork



15 weeks of
chemotherapy



After

Chemo

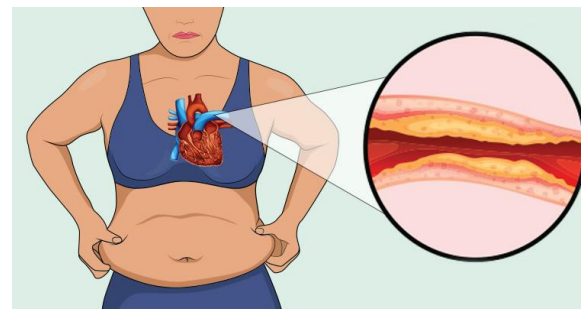
Blood pressure
Bloodwork



Impact of chemotherapy on Metabolic Syndrome in women with curable breast cancer – Changes after only 15 weeks of chemotherapy



- A new diagnosis of Metabolic Syndrome was made in 72%
- Weight increased ↑ 12 lbs
- Fat mass increased ↑ 9 lbs
- % Fat increased ↑ 3%
- Total Cholesterol ↑ 16.5
- HbA1c increased ↑ 0.9 points





What can you do about Metabolic Syndrome?

- Treat elevated blood sugars
- Exercise
- Sleep
- Diet
- Medication

Effects of Aerobic and Resistance Exercise on Metabolic Syndrome, Sarcopenic Obesity, and Circulating Biomarkers in Overweight or Obese Survivors of Breast Cancer: A Randomized Controlled Trial

Christina M. Dieli-Conwright, Kerry S. Courneya, Wendy Demark-Wahnefried, Nathalie Sami, Kyuwan Lee, Thomas A. Buchanan, Darcy V. Spicer, Debu Tripathy, Leslie Bernstein, and Joanne E. Mortimer

- Women undergoing (neo) adjuvant chemotherapy
- Exercise intervention with a supervised moderate-to-vigorous—65% to 85% of heart rate maximum—aerobic and resistance exercise three times per week for 16 weeks
- 50 patients in each arm

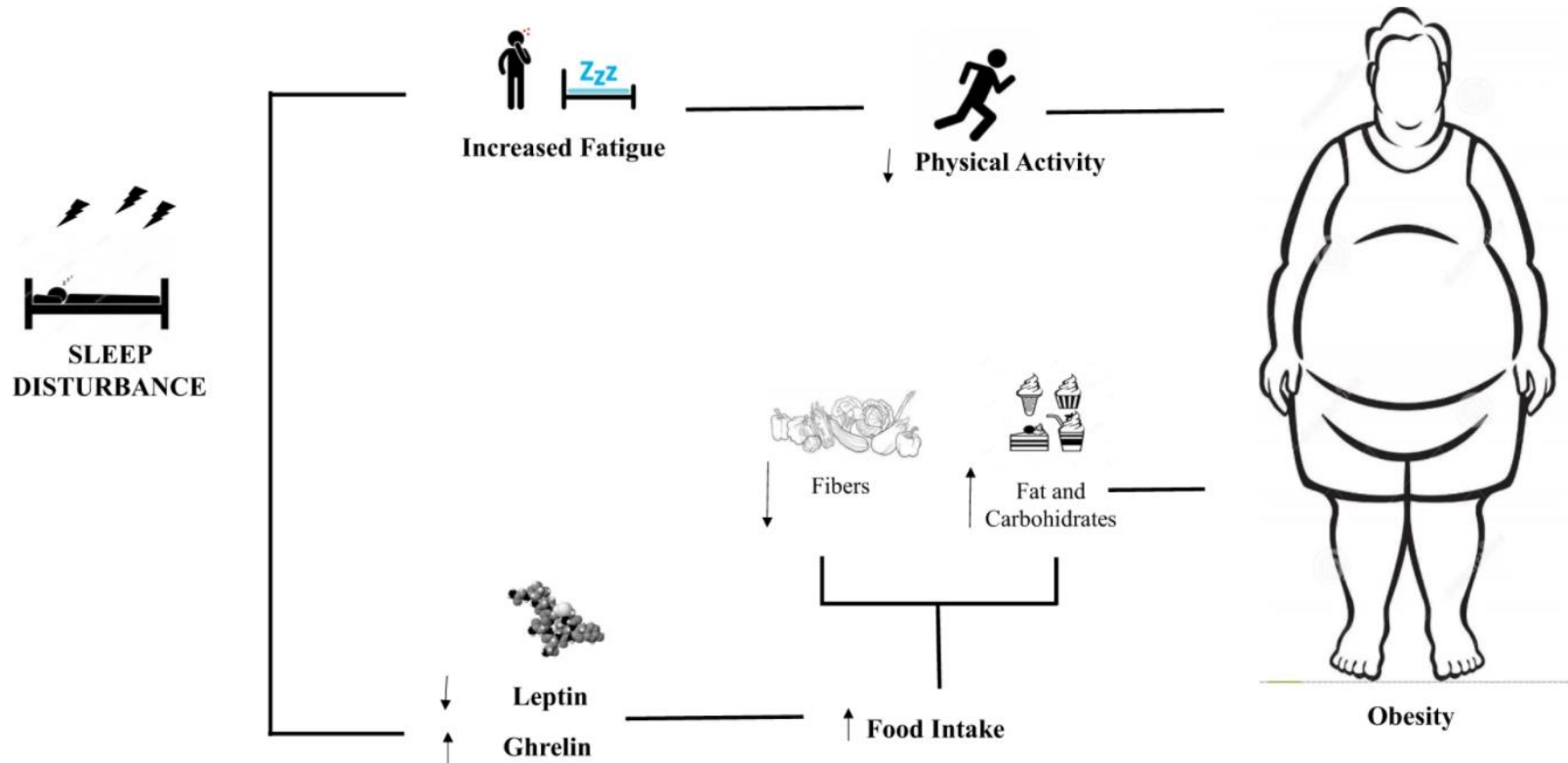
Impact of aerobic and resistance exercise on MetS



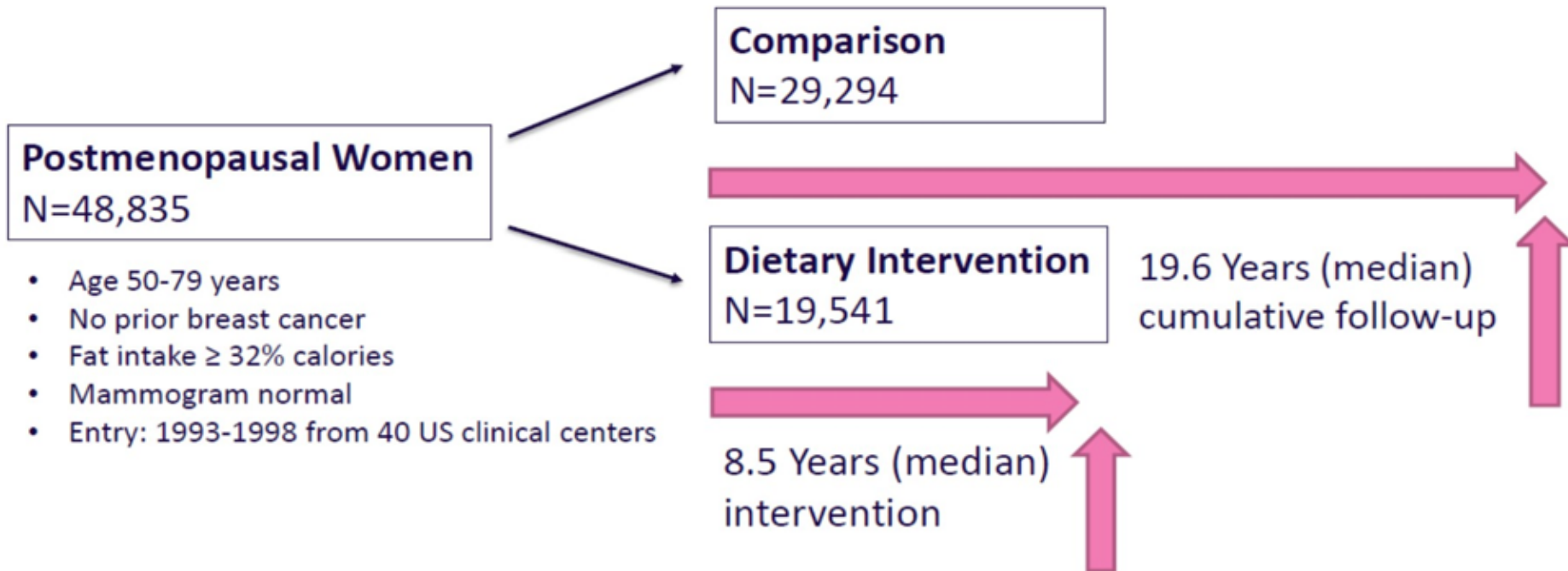
	Intervention	Usual Care
Metabolic Syndrome		
Baseline	39/50 (78%)	38/50 (76%)
Post-Intervention	7/47 (15%)	36/45 (78%)
BMI (mean)		
Baseline	33.5	33.3
Post-Intervention	28	34.4

Dieli-Conwright, J Clin Oncol 2018;18:875

Mechanism of association between sleep disorders and obesity



Women's Health Initiative Dietary Modification Trial

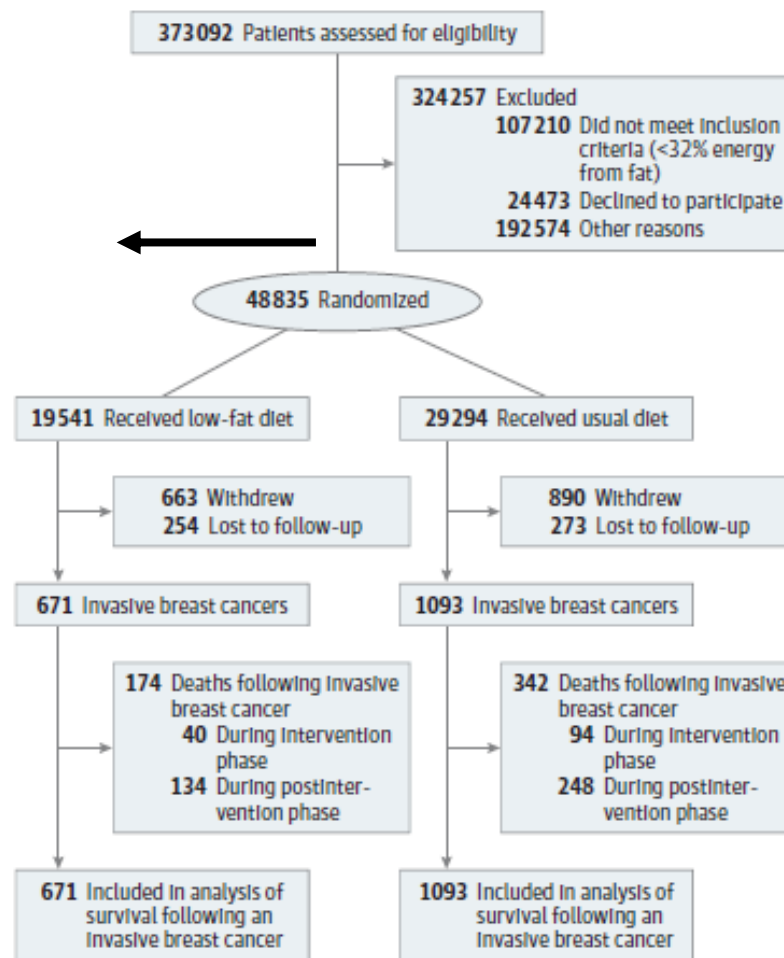


Analysis Endpoints: Deaths from breast cancer. Deaths after breast cancer
Clinical follow-up plus National Death Index queries

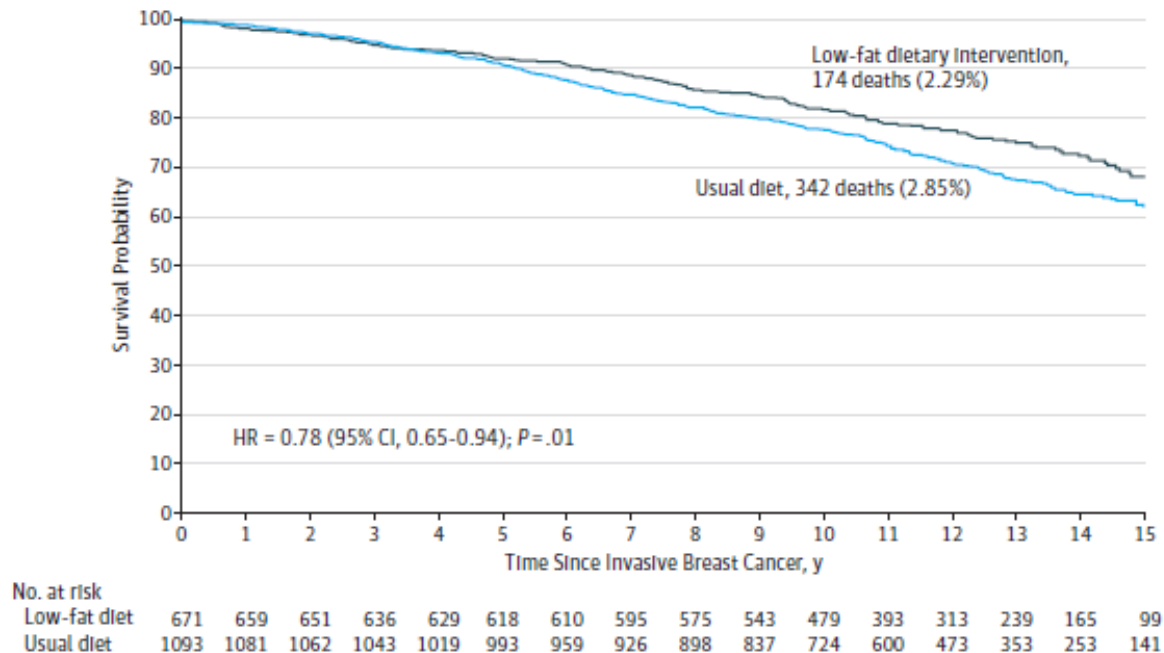
Dietary Intervention: Goal to reduce fat intake to 20% and increase fruit, vegetables, and grain

Participant flow for women who received a breast cancer diagnosis during the dietary intervention period for analysis of breast cancer overall survival

- At a median of 8.5 years there were 8% fewer breast cancers ($p=0.09$)
- Fewer poor prognosis ER+/PR-/HER2- cases ($p=0.04$)



Dietary Modification associated with breast cancer overall survival Median 11.5 years post breast cancer diagnosis



Conclusion: of those women diagnosed with breast cancer during the intervention period, overall survival was superior in those on the intervention arm.

Chlebowski, JAMA Oncology, 2018;1212



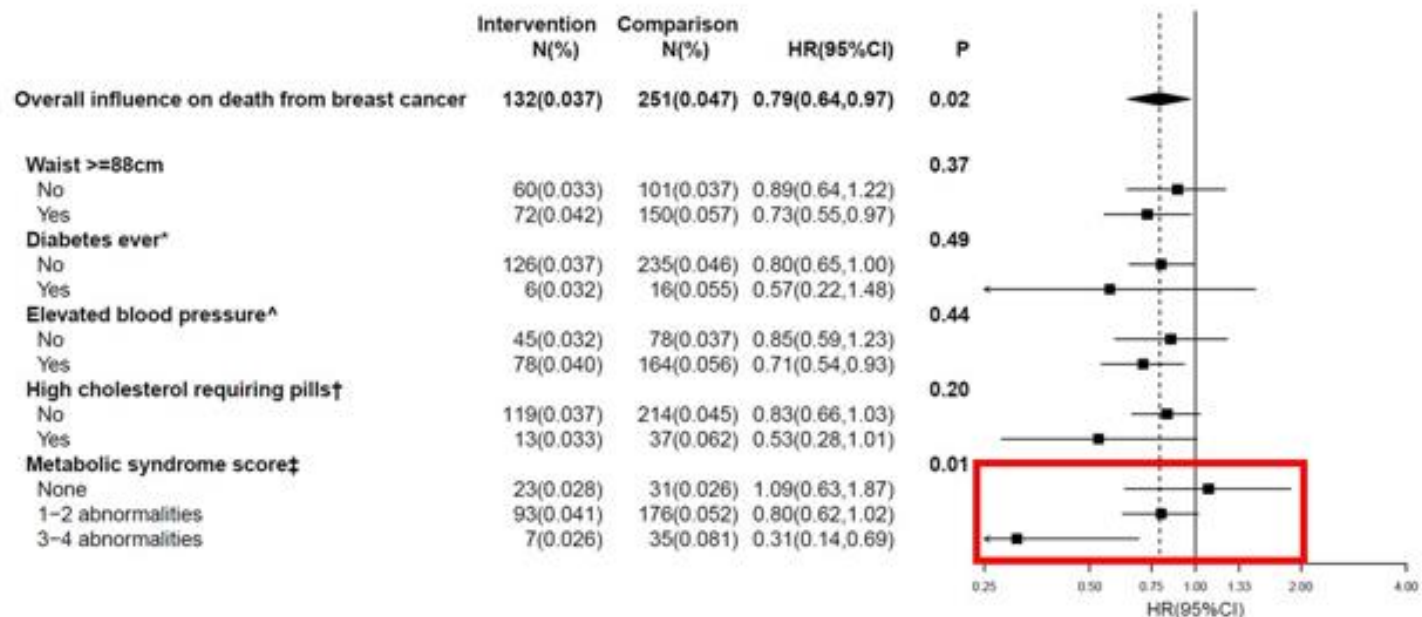
ARTICLE

Clinical Study

Low-fat dietary pattern and breast cancer mortality by metabolic syndrome components: a secondary analysis of the Women's Health Initiative (WHI) randomised trial

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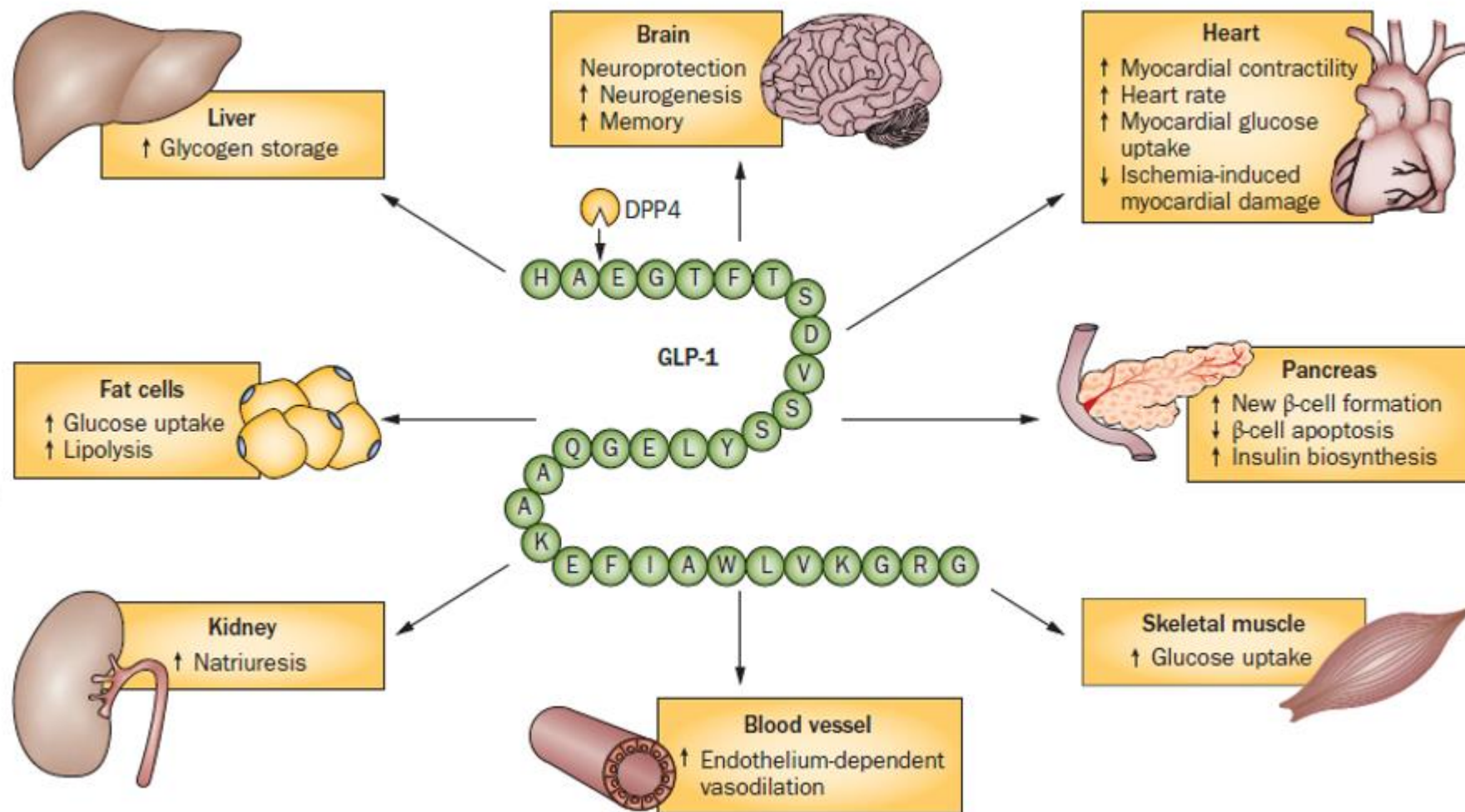
Death from Breast Cancer by Metabolic Syndrome Components



Favors intervention

Favors comparison

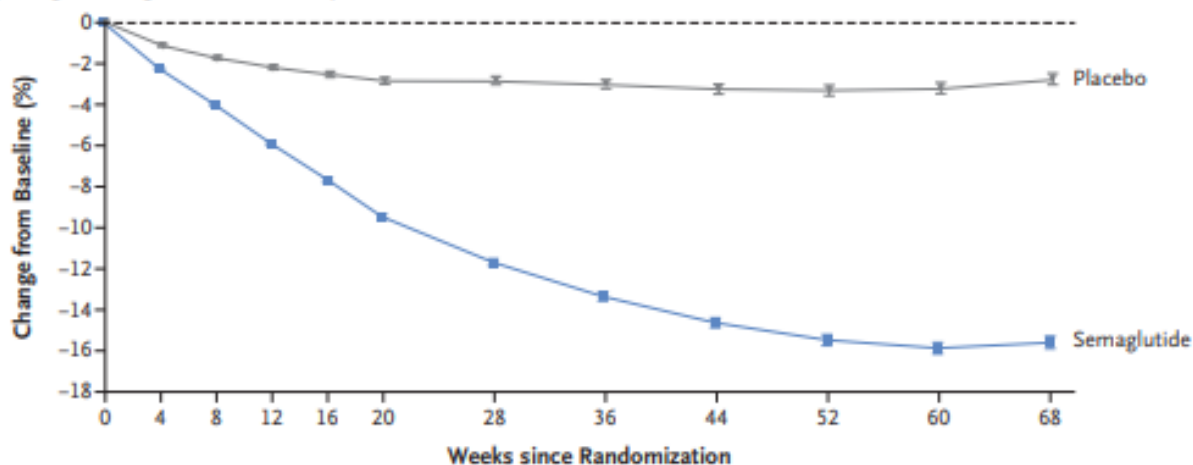
GLP-1 actions



Once-Weekly Semaglutide in Adults with Overweight or Obesity

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A Body Weight Change from Baseline by Week, Observed In-Trial Data



No. at Risk

Placebo	655	649	641	619	615	603	592	571	554	549	540	577
Semaglutide	1306	1290	1281	1262	1252	1248	1232	1228	1207	1203	1190	1212





THANK YOU!