

**Living Well During and After Breast Cancer: Stress Reduction and a Healthy Lifestyle Workshop**

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## Breast Disease


- In 2009, an estimated 192,370 new cases of invasive breast cancer were expected to be diagnosed along with 40,170 deaths from breast cancer.

(American Cancer Society)



## Breast Cancer Incidence


- Breast Cancer Incidence:
  - ❖ 1960 was 1 in 20
  - ❖ Today it is 1 in 8
- Incidence rates have decreased by about 2% per year from 1999 to 2006
- 2.5 million survivors nationwide



## Risk Factors

❖ **CANNOT change:**

- Gender
- Race
- Age (getting older)
- Family history
- Early onset of menstrual period
- Menopause after age 55
- Breast radiation before age 30
- BRCA1 & BRCA2 mutations



## Lifestyle Risk Factors

❖ **You have control over your lifestyle**


- Overweight/obese
- Decreased physical activity
- First child after age 30 or no children
- Long term use of HRT
- Alcohol consumption
- Stress
- Smoking



## Early Detection Is The Key To More Successful Treatment

- Age 40 and over- Mammogram and clinical breast exam (CBE ) by a health care provider yearly
- Age 20's and 30's- CBE at least every 3 years
- Starting in 20's- monthly breast self exams

These guidelines are per the American Cancer Society for women at average risk






## Break the Cycle

- ❖ Take control of your life and of your health
- ❖ Be informed
- ❖ Treat the underlying causes of breast and cardiac disease
- ❖ Make healthy choices




## The STEP program (Stress Therapy Empowering Prevention)





## History

- The Stress Therapy Empowering Prevention Program (STEP) was developed from previous lifestyle change programs that began at Windber Medical Center in 2000.
- Through all the knowledge that was gained from implementing those programs, we were able to expand into the STEP program.



**The Joyce Murtha Breast Care Center**





## Joyce Murtha Breast Care Center

- Imaging
  - Digital mammography
  - Ultrasound diagnostics
  - Breast MRI
- Biopsy
  - Ultrasound- guided
  - Stereotactic
  - MRI-guided
- Risk Reduction Clinic
- Breast Surgeon

## Joyce Murtha Breast Care Center

- Average 500 patients per month
- Annually:
  - 7,502 Mammograms
  - 1,295 Breast Ultrasounds
  - 143 Biopsies
  - 155 Breast Surgeries
  - 48 Risk Reduction Clinic Patients





## The STEP Program Who can participate?

- ❖ **Women diagnosed and/or at risk for breast disease such as:**
  - ❖ Early onset of menstruation
  - ❖ Late onset of menopause
  - ❖ First child after the age of 30 or no children
  - ❖ Family history of breast disease
  - ❖ Previous breast biopsies
- ❖ **Women diagnosed and/or at risk for coronary artery disease such as:**
  - ❖ High blood pressure
  - ❖ High blood cholesterol
  - ❖ Obesity
  - ❖ Sedentary lifestyle
  - ❖ Family history of coronary artery disease

## Heart Disease

- #1 Cause of death and disability
- Half a million women each year
- One death a minute
- Most women worry more about breast cancer than heart disease, but for every women that dies from breast cancer approximately 10 will die from heart attacks





## What's Your Risk?

- ❖ **CANNOT change:**
  - Gender
  - Age
  - Family history
- ❖ **You have control over your lifestyle**
  - Overweight/obese
  - Decreased physical activity
  - Stress
  - Smoking
  - Poor diet
  - High blood pressure
  - High cholesterol
  - Diabetes

## Multi-Disciplinary Team

- ❖ Physician
- ❖ Registered Nurse
- ❖ Licensed Dietitian
- ❖ Exercise Physiologist
- ❖ Stress Management Specialist
- ❖ Licensed Therapist

## Phase I

- ❖ Extensive Physician visit
- ❖ "Pearls for Your Health" Workshop
- ❖ 12 week Healthy Intervention
  - Once a week on-site sessions
  - Completion of weekly "Personal Awareness Log"

## Phase I- Data Collection


- ❖ Baseline
- ❖ Completion of Healthy Intervention
  - Traditional risk factors
    - Weight, BP, BMI, blood work
  - Carotid Ultrasound
    - measure CIMT
  - Psychosocial measurements
    - Perceived Stress, Hostility, Depression
  - Sleep Quality
  - Biochemical Assays





## Phase II

- ❖ Contact monthly with Health Coach
  - If necessary more frequent follow up can be implemented



## Phase II-Data Collection

- ❖ One year
- ❖ Every 6 months thereafter for a period of 5 years
  - Traditional risk factors
    - Weight, BP, BMI, Blood work
  - Carotid Ultrasound
    - measure CIMT
  - Psychosocial measurements
    - Perceived Stress, Hostility, Depression
  - Sleep Quality
  - Biochemical Assays




## The Four Components

- ❖ Mediterranean Based Nutrition Plan
- ❖ Moderate Aerobic Exercise
- ❖ Stress Management Techniques
- ❖ Mind/Body Health




## Nutrition Guideline Summary

- ❖ **Everything in Moderation**
- ❖ 6 servings of grains-at least 3 whole grains (Limit Refined Carbohydrates)
- ❖ 5 veggie servings
- ❖ 4 fruit servings
- ❖ 2 protein servings
  - Fish at least 2x/week
  - Poultry weekly
- ❖ 3 dairy servings (low fat)
- ❖ Oil (3 Tbsp/Day)
- ❖ Red meat monthly
- ❖ Alcohol in Moderation



## Exercise Guidelines

- ❖ Limit passive, inactive pursuits
- ❖ Add more activity into everyday life
- ❖ Exercise aerobically approximately 3 hours per week
- ❖ Perform strength training activities a minimum of 2 times per week



## Stress Management

**Includes five techniques:**

- ❖ Deep breathing
- ❖ Progressive relaxation
- ❖ Meditation
- ❖ Guided imagery
- ❖ Yoga poses



## Goals of Mind/Body Health

- ❖ To find ways to connect, both to ourselves and to others
- ❖ The effective balance of physical and psychological health
- ❖ Shifting the focus of healthcare
  - ❖ Holistic approach
  - ❖ Preventive

## Benefits of Lifestyle Change Improved Quality of Life!

- ❖ Decreased
  - ❖ Blood Pressure
  - ❖ Blood Cholesterol
  - ❖ Weight
  - ❖ Need for medications
  - ❖ Depression scores
  - ❖ Hostility scores
  - ❖ Perceived stress scores

- ❖ Increased
  - ❖ Energy
  - ❖ Exercise tolerance
  - ❖ Sense of well-being
  - ❖ Satisfaction with life
  - ❖ Improved sleep patterns



## Traditional Risk Factor Results

Outcome	Baseline	3-months	%Δ	P	1-year	%Δ	P
Weight	180.5	177.3	-1.8	<0.05	175.6	-2.7	0.10
Body mass index	32.5	31.7	-2.5	<0.05	31.5	-3.1	0.38
Total cholesterol	201.1	200.2	-0.5	0.90	203.4	+1.1	0.73
Triglycerides	157.2	136.7	-13.0	0.17	147.6	-6.1	0.52
Systolic BP	134.0	125.1	-6.6	0.15	126.4	-5.7	0.23
Diastolic BP	79.6	72.9	-8.4	0.08	76.3	-1.3	0.28

## Psychosocial and Sleep Results

Outcome	Baseline	3-months	%Δ	P	1-year	%Δ	P
Depression	13.7	11.3	-17.5	0.23	8.5	-38.0	0.11
Hostility	6.4	4.8	-25.0	0.16	5.7	-10.9	0.33
Perceived Stress	16.3	12.7	-22.1	<0.05	11.7	-28.2	<0.05
Pittsburgh Sleep Quality	10.2	7.5	-26.5	0.06	9.7	-4.9	<0.05




## Recruitment

- Newspaper and radio ads
- Distribution of patient informational brochures
- Speaking engagements at community events, physician offices and support groups

## Recruitment Barriers

- Out of pocket expenses
- Lack of local physician referrals
- Limited time to devote to participation
- Lack of knowledge about benefits of lifestyle change




### When is the Teachable Moment?

To motivate behavior change a health event must:

- Increase perception that a behavior change can address the threat
- Be associated with strong positive or negative emotions, which will increase the perceived meaningfulness of the event

McBride CM, Emmons KM, Lipkus IM.



- **Diet**
  - After more time has elapsed since diagnosis
- **Physical Activity**
  - Varies
  - Individualized

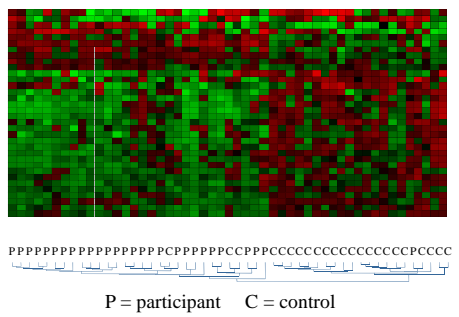


### Research



**Windber Research Institute**

### Participants vs Controls at One Year



P = participant C = control

- “The program is the best thing that has happened to me...I learned how to make healthier choices... I have more energy & a better attitude thanks to the program.”
- “I really liked the one-on-one approach...I received attentive listening and constructive recommendations...I feel that all 4 components worked together to help me be healthier.”
- “I was able to gain better control over my health... The expertise & support of the caring staff at Windber has helped me sustain my new healthy lifestyle.”

### Questions?

