Out of the 50 charts investigated a total of 8 breast cancer survival patients were diagnosed with breast cancer recurrence. 33 patients were overweight or obese and out of the 33 overweight and obese breast cancer survivors six had breast cancer recurrence. Compared with the same 50 charts, 17 breast cancer survivors were at average weight or below and out of the 17 breast cancer survivors two had breast cancer recurrence.

1) 69-year-old - HT 5.1- WT 100 -BMI 18.91 diagnosed in 2014 with left breast lobular invasive carcinoma, treatment lumpectomy (a type of breast conservation surgery) and radiation no lymph node involvement- grade 1-stage I, no recurrence.

2) 53-year-old - HT 5.3- WT 155 -BMI 27.5 diagnosed in 2014 with bilateral breast invasive ductal carcinoma, treatment- chemotherapy and lumpectomy, lymph node involvement, grade 3, stage III, no recurrence

3) 75-year-old HT 5.3- WT 180 -BMI 31.89 diagnosed in 2013 with bilateral breast ductal carcinoma in situ, treatment- chemotherapy and mastectomy, no lymph node involvement grade 3 stage III, no recurrence.

4) 72-year-old HT 5.4- WT 141 -BMI 24.2 diagnosed in 2012 left breast ductal carcinoma in situ in 2 area of the breast, treatment mastectomy no lymph node involvement, grade 2 stage II, recurrence 2014.

5) 72-year-old HT 5.6- WT 213 -BMI 34.19 diagnosed in 2014 with left ductal carcinoma in situ treatment lumpectomy and radiation, no lymph node involvement, grade 2 stage II, no recurrence.

6) 55-year-old HT 5.1- WT 188 -BMI 35.62 diagnosed with left invasive ductal carcinoma in 2013 treatment lumpectomy and radiation no lymph node involvement grade 3 stage III, recurrence 2014 mastectomy

7) 78-year-old HT 5.5- WT 242 -BMI 38.03 diagnosed 2016 left breast invasive ductal carcinoma treatment lumpectomy and radiation no lymph node involvement grade 1 stage II, no recurrence.

8) 59-year-old HT 5.3- WT 144 -BMI 25.56 diagnosed 2016 with right breast invasive ductal carcinoma in 2014 treatment mastectomy grade 3 stage III, triple negative, no recurrence

9) 62-year-old HT 5.7- WT 258 -BMI 40.44 diagnosed twice in 2012 with left breast invasive ductal carcinoma and the second diagnosed was left chest wall. First treatment was mastectomy and chemotherapy second treatment chemotherapy. Lymph node involvement, grade 4, stage III, triple negative, recurrence 2015.

10) 56-year-old HT 5.6- WT 203 -BMI 3277 diagnosed with right papillary carcinoma in 2014. Treatment lumpectomy, no lymph node involvement, grade 1 stage II. No recurrence

11) 43-year-old HT 5.3- WT 136 –BMI 21.21 diagnosed in 2015, left breast ductal carcinoma in situ, treatment lumpectomy and radiation no lymph node involvement grade 1 stage 0, no recurrence.

12) 58-year-old HT 5.6- WT 192 –BMI 30.99 diagnosed in 2014 with left breast ductal carcinoma in situ, lumpectomy and radiation no lymph node involvement, grade 2 stage II, no recurrence.

13) 64-year-old HT 5.8- WT 200 -BMI 36.51 diagnosed in 2014 with invasive ductal carcinoma, treatment lumpectomy and chemotherapy, positive lymph node involvement, grade 2, stage II, no recurrence

14) 65-year-old HT 5.6- WT 240 -BMI 36.54 diagnosed in 2014 with left breast invasive ductal carcinoma, lumpectomy and radiation no lymph node involvement grade 1 stage II, no recurrence.

15) 55-year-old HT 5.4- WT 136 -BMI 23.3 diagnosed in 2014 with left breast up to carcinoma, treatment chemotherapy and mastectomy grade IV and stage III, positive lymph node involvement, no recurrence.

16) 57-year-old HT 5.5- WT 231-BMI 38.44 diagnosed in 2010 right breast ductal carcinoma in situ, lumpectomy and radiation no lymph node involvement grade 3, stage III, no recurrence.

17) 66-year-old HT 5.4- WT 162 -BMI 27.81 diagnosed in 2013 with left ductal carcinoma in situ, treatment lumpectomy and radiation grade 2 stage I, no recurrence.

18) 62-year-old HT 5.2- WT 1 30-BMI 23.82 diagnosed in 2011 with right breast ductal carcinoma in situ treatment lumpectomy and radiation no lymph node involvement grade 1 stage 0, no recurrence .

19) 62-year-old HT 5.9- WT 208 -BMI 30.72 diagnosed in 2014 with left breast invasive ductal carcinoma treatment lumpectomy and radiation no lymph node involvement grade 1 stage , no reoccurrence.

20) 53-year-old HT 5.5 - WT 122 -BMI 20.3 diagnosed in 2014 with right ductal carcinoma in situ treatment lumpectomy and radiation no lymph node involvement grade 2 stage II no recurrence.

21) 42 year old HT 5. 5- WT 234-BMI 38.90 diagnosed in 2014 left invasive ductal carcinoma in situ treatment lumpectomy and radiation, no lymph node involvement, grade 2 stage II, recurrence 2016.

22) 49-year-old HT 5.1- WT 188 -BMI 35.52 diagnosed in 2014 right breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement grade 2 stage I, no recurrence.

23) 45-year-old HT 5.3- WT 1 81 –BMI 32.66 diagnosed in 2015 with right breast invasive ductal carcinoma and ductal carcinoma in situ treatment chemotherapy and lumpectomy, positive lymph node involvement, grade 3 stage II, no recurrence.

24) 53-year-old HT 5.2- WT 1 04 -BMI 19.02 diagnosed in 2015 with left breast invasive ductal carcinoma, treatment lumpectomy and radiation, no lymph node involvement grade 2 stage II, no recurrence.

25) 70-year old HT- 5. 5 WT 1 61 -BMI 26.9 diagnosed in 2013 with left breast ductal carcinoma in situ, treatment lumpectomy and radiation no lymph node involvement grade 2 stage I, no recurrence.

26) 64-year-old - HT 5.1- WT 100 -BMI 18.91 diagnosed in 2008 with lobular invasive carcinoma, treatment lumpectomy and radiation no lymph node involvement- grade 1-stage II, no recurrence.

27) 69-year-old - HT 5.5 WT 277 -BMI 46.1 diagnosed left invasive ductal carcinoma in 2011, treatment lumpectomy with radiation, no lymph node involvement- grade 2 stage II, no recurrence.

28) 49-year-old - HT 5. 3- WT 180 -BMI 31.89 diagnosed in 2012 with left invasive ductal carcinoma, treatment lumpectomy and radiation, no lymph node involvement- grade 1-stage I, no recurrence.

29) 52-year-old - HT 5.2 – WT 198 -BMI 36.21diagnosed in 2013 with left breast invasive ductal carcinoma, treatment lumpectomy, chemotherapy and radiation , positive lymph node involvement- grade 3-stage III, no recurrence.

30) 47-year-old - HT 5.4- WT 141 -BMI 24.2 diagnosed in 2014 with right breast ductal carcinoma in situ, treatment lumpectomy plus radiation, no lymph node involvement- grade 1-stage I, no recurrence.

31) 63-year-old HT 5.3- WT 179 -BMI 32.19 diagnosed in 2013 with left breast ductal carcinoma in situ treatment lumpectomy and radiation no lymph node involvement grade 1 stage II no recurrence.

32) 56-year-old HT 5.5- WT 147-BMI 24.5 diagnosed in 2007 with left breasts invasive ductal carcinoma, treatment lumpectomy with radiation, no lymph node involvement, grade 2 stage II, recurrence 2015

33) 60-year-old HT 5.5- WT 165 -BMI 27.45 diagnosed in 2015 with left breast invasive ductal carcinoma, treatment lumpectomy and radiation, no lymph node involvement, grade 3 stage II, no recurrence.

34) 67 year old HT 5.7- WT 179 -BMI 28.04 diagnosed in 2013 with left breast invasive ductal carcinoma treatment lumpectomy and radiation no lymph node involvement grade 2, stage II no recurrence.

35) 77-year-old HT 5.3- WT 185 -BMI 32.77 diagnosed in 2014 right breast invasive ductal carcinoma, treatment mastectomy and chemotherapy, positive lymph node involvement, grade 3, stage III, no recurrence.

36) 74 year old HT 5.3- WT 140 -BMI 24.8 diagnosed in 2012 left breast invasive ductal carcinoma, treatment lumpectomy and radiation, no lymph node involvement, grade 3, stage II, no recurrence.

37) 55-year-old HT 5.3- WT 140 -BMI 24.8 diagnosed in 2009 with left breast invasive ductal carcinoma, treatment mastectomy and chemotherapy, positive lymph node involvement, grade 3 stage III, no recurrence.

38) 56-year-old HT 5.7- WT 223 -BMI 35.98 diagnosed in 2014 with left breast ductal carcinoma in situ treatment lumpectomy and chemotherapy, no lymph node involvement grade 3 stage III, no recurrence.

39) 59-year-old HT 5.6- WT 210-BMI 34.05 diagnosed in 2010 with right breast ductal carcinoma in situ treatment lumpectomy and radiation, no lymph node involvement grade 1, stage 0 , no recurrence

40) 46-year-old HT 5.7- WT 220 -BMI 35.00 diagnosed in 2015 with left breast ductal carcinoma in situ, in 2 different regions of the breast and invasive ductal carcinoma, treatment mastectomy and chemotherapy, positive lymph node involvement, grade 4, stage III, recurrence again in the same year 2015.

41) 66-year-old HT 5.5- WT 201-BMI 33.4 diagnosed in 2011 with left breast invasive ductal carcinoma, treatment lumpectomy chemotherapy, positive lymph node involvement, grade 2, stage II, no recurrence

42) 66-year-old HT 5.5- WT 207-BMI 34.5 diagnosed in 2015 left breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement, grade 2, stage I, no recurrence.

43) 65-year-old HT 5.2- WT 107 -BMI 19.5 diagnosed in 2014 with right breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement, grade 1, stage I, no recurrence

44) 62-year-old HT 5.5- WT 250-BMI 36.56 diagnosed in 2013 with left breast invasive carcinoma, treatment mastectomy and chemotherapy, positive lymph node involvement, grade 4, stage III, recurrence at the left chest wall 2016.

45) 71 year old HT 5.1- WT 117 -BMI 22.11 diagnosed in 2014 left breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement, grade 2, stage I, no recurrence.

46) 73-year-old HT 5.4- WT 149 -BMI 25.75 diagnosed in 2013 left breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement, grade 2 stage II, no recurrence.

47) 75-year-old HT 5.4- WT 1162 -BMI 27.81 diagnosed in 2016 with left breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement, grade 2 stage II no recurrence.

48) 61-year-old HT 5.3- WT 138 –BMI 24.4 diagnosed in 2013 with right breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement, grade 1, stage 0, no recurrence

49) 57-year-old HT 5.5- WT 147 -BMI 24.5 diagnosed in 2014 with left breast invasive ductal carcinoma, treatment lumpectomy and radiation no lymph node involvement, grade 2, stage II, no recurrence.

50) 49-year-old HT 5.4- WT 141-BMI 24.2 diagnosed in 2012 with right breast ductal carcinoma in situ, treatment lumpectomy and radiation, no lymph node involvement, grade 2, stage I, no recurrence.