Volpara HEALTH

A guide for best practices

1 Use one of the following validated breast densities[2]

Average Volpara Volumetric Breast Density percentage (VBD%)

ACR BI-RADS® Atlas 4th Edition mapped to 5th Edition values:

1 → a 2 → b 3 → c 4 → d

2 Understand the differences between the validated breast densities

Volpara Volumetric Breast Density %	BI-RADS 4th Edition mapped to a, b, c, d
Objective, continuous measurement of breast density	Subjective, stepwise grade of breast density
Excellent agreement to MRI[3]	Agreement dependent onradiologist experience[4]

Volumetric breast density gives a true reflection of risk because of the continuous nature of both the risk model and density calculation.

Based on a 50-year-old with no other risk factors:

Visual BI-RADS	**C**	**C**	**C**
Lifetime Risk	17.1%	17.1%	17.1%
vs			
VBD%	**8.2**	**10**	**13.9**
Lifetime Risk	15.9%	18.6%	23.8%

Volumetric Breast Density gives a true reflection of risk because of the continuous nature of both the risk and density calculation.

Lifetime Risk Using Volpara® Density™ average VBD% is continuous.

3 Configure the model correctly

If using % Lifetime Risk, make sure competing mortality* is turned **on**. If this is not turned on, it may erroneously inflate risk—especially in young women.[5]

*Calculation includes possibility of death from non-cancer causes.

4 Use the model correctly

Fill in as much information as possible, but don't guess. It's **ok** if a woman doesn't know an answer. The model will simply use the population average for her age.

5 Use only high-quality images

The risk of developing breast cancer is unknown for women who have implants or have had breast surgery. Density is also hard to judge automatically or visually on blurred or poorly positioned images.

What is the Tyrer-Cuzick Breast Cancer Risk Model?

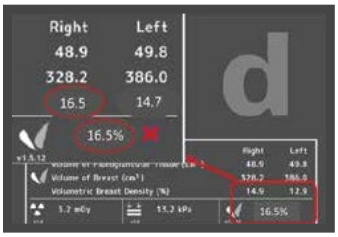
It is a tool used to identify women who may be at a higher risk of developing breast cancer over time. It does not predict masking risk. When used correctly, it identifies women who may benefit from supplemental screening such as MRI, ultrasound, and genetic testing.[1]

Examples for best practice use

Real-life example

Risk Factors
Age: 47 Height: 5'4"
Weight: 130 lbs
Premenopausal
Grandmother:
Breastcancer at age 68

Input **average** Breast Density %



Don't use Highest VBD 16.5%

Volpara 5th Edition takes the **highest** of VBD%

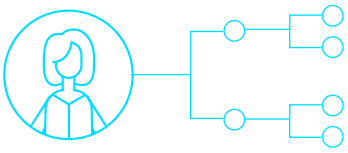
Turn **on** competing mortality

Use Average VBD 15.6%

Volpara 4th Edition takes the **average** of VBD%

Breast Density	Lifetime Risk with Competing Mortality OFF	Lifetime Risk with Competing Mortality ON
Average VBD = 15.6%	21.5%	17.9% - Lifetime Risk Validated
Highest VBD = 16.5%	22.4%	18.9%
BI-RADS = d	21.8%	18.4%

Include as many family members as possible



Personal information
Age: 47 Height: 5'4"
Weight: 130 lbs
Premenopausal
Nulliparous
VBD 12%

Family history with cancer
Maternal grandmother: breast cancer at age 68

Lifetime risk = 16.7%

vs

Complete family information
Maternal grandmother: BC age 68

3 maternal aunts (no cancer)

2 paternal aunts (no cancer)

4 sisters (no cancer)

Lifetime risk = 13.7%

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References

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2. Brentnall, A.R. et al. A Case-Control Study to Add Volumetric or Clinical Mammographic Density into the Tyrer-Cuzick Breast Cancer Risk Model. Journal of Breast Imaging (2019).

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5. Himes, D.O., Root, A.E., Gammon, A. & Luthy, K.E. Breast Cancer Risk Assessment: Calculating Lifetime Risk Using the Tyrer-Cuzick Model. The Journal for Nurse Practitioners 12, 581–592 (2016).