

ACR TI-RADS

COMPOSITION (Choose 1)	ECHOGENICITY (Choose 1)	SHAPE (Choose 1)	MARGIN (Choose 1)	ECHOGENIC FOCI (Choose All That Apply)
Cystic or almost completely cystic 0 points Spongiform 0 points Mixed cystic and solid 1 point Solid or almost completely solid 2 points	Anechoic 0 points Hyperechoic or isoechoic 1 point Hypoechoic 2 points Very hypoechoic 3 points	Wider-than-tall 0 points Taller-than-wide 3 points	Smooth 0 points Ill-defined 0 points Lobulated or irregular 2 points Extra-thyroidal extension 3 points	None or large comet-tail artifacts 0 points Macrocalcifications 1 point Peripheral (rim) calcifications 2 points Punctate echogenic foci 3 points

Add Points From All Categories to Determine TI-RADS Level

0 Points

TR1
Benign
No FNA

2 Points

TR2
Not Suspicious
No FNA

3 Points

TR3
Mildly Suspicious
FNA if ≥ 2.5 cm
Follow if ≥ 1.5 cm

4 to 6 Points

TR4
Moderately Suspicious
FNA if ≥ 1.5 cm
Follow if ≥ 1 cm

7 Points or More

TR5
Highly Suspicious
FNA if ≥ 1 cm
Follow if ≥ 0.5 cm*

COMPOSITION	ECHOGENICITY	SHAPE	MARGIN	ECHOGENIC FOCI
<i>Spongiform</i> : Composed predominantly (>50%) of small cystic spaces. Do not add further points for other categories. <i>Mixed cystic and solid</i> : Assign points for predominant solid component. Assign 2 points if composition cannot be determined because of calcification.	<i>Anechoic</i> : Applies to cystic or almost completely cystic nodules. <i>Hyperechoic/isoechoic/hypoechoic</i> : Compared to adjacent parenchyma. <i>Very hypoechoic</i> : More hypoechoic than strap muscles. Assign 1 point if echogenicity cannot be determined.	<i>Taller-than-wide</i> : Should be assessed on a transverse image with measurements parallel to sound beam for height and perpendicular to sound beam for width. This can usually be assessed by visual inspection.	<i>Lobulated</i> : Protrusions into adjacent tissue. <i>Irregular</i> : Jagged, spiculated, or sharp angles. <i>Extra-thyroidal extension</i> : Obvious invasion = malignancy. Assign 0 points if margin cannot be determined.	<i>Large comet-tail artifacts</i> : V-shaped, >1 mm, in cystic components. <i>Macrocalcifications</i> : Cause acoustic shadowing. <i>Peripheral</i> : Complete or incomplete along margin. <i>Punctate echogenic foci</i> : May have small comet-tail artifacts.

*Refer to discussion of papillary microcarcinomas for 5-9 mm TR5 nodules.