

## Supplementary Materials

**Table 1.** Summary of all echogenicity and muscle texture features across nine angles and three gain settings.

Gain	Ultrasound transducer angle (degrees)									Mea n	SD	CV %	Cronbac h's $\alpha$ [95%CI]
	-20°	-15°	-10°	-5°	0°	5°	10°	15°	20°				
<b>Echogenicity – Grayscale level (GSL)</b>													
0 dB	21.9 6	24.3 1	26.3 1	27.0 2	26.4 5	26.2 3	26.6 6	25.8 7	24.2 0	24.4 5	1.64	6.4 S	
5 dB	20.8 7	24.6 6	27.9 5	28.9 0	31.7 3	36.2 5	36.7 4	37.3 2	37.0 8	31.2 8	6.06	19.4 M	0.82
10 dB	35.6 6	41.6 3	48.4 2	51.8 7	53.8 4	54.4 1	54.4 3	55.4 2	54.2 9	50.0 0	6.92	13.8 M	[0.75- 0.90]
Mean	26.1 7	30.2 0	34.2 3	35.9 3	37.3 4	38.9 6	39.2 8	39.5 4	38.5 2				<b>Good</b>

SD	8.24	9.90	12.3	13.8	14.5	14.2	14.0	14.9	15.0
			2	4	3	8	6	0	9
CV%	31.5	32.8	36.0	38.5	38.9	36.7	35.8	37.7	39.2
	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>

<b>Angular second moment (ASM) – Grayscale uniformity</b>										Mea n	SD	CV %	Cronbac h's α [95%CI]
0 dB	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.00	17.9	
	40	40	70	45	30	30	45	85	55	82	50	<b>M</b>	
5 dB	0.06	0.04	0.03	0.01	0.01	0.01	0.00	0.01	0.00	0.02	0.01	76.0	
	00	40	35	95	65	20	95	00	95	38	81	<b>L</b>	
10 dB	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.	0.68
	25	65	40	35	30	25	25	25	30	56	65	<b>6 L</b>	[0.45- 0.85]
Mean	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01				<b>Questio</b>
	88	82	15	58	42	25	22	37	60				<b>nable</b>
SD	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				
	92	94	55	10	02	03	12	34	72				

CV%	49.5	68.9	72.1	69.3	72.0	82.1	92.4	97.9	107.
	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>5 L</b>

<b>Contrast (CON) – Pixel to image grayscale variation</b>										Mea n	SD	CV %	Cronbac h's α [95%CI]
0 dB	9.30	10.5	10.6	10.9	11.9	10.5	10.7	10.1	9.37	10.4	0.82	7.8	<b>S</b>
	6	66	50	53	92	07	40	49	3	7			
5 dB	9.57	11.2	12.3	13.2	14.6	14.7	14.6	15.3	14.8	13.4	1.98	14.7	
	0	64	86	85	67	90	93	15	90	3		<b>S</b>	
10 dB	15.9	18.4	22.4	25.4	25.7	23.0	24.4	23.1	22.0	22.3	3.21	14.4	0.75
	91	93	99	87	86	90	60	52	98	4		<b>S</b>	[0.62- 0.87]
Mean	11.6	13.4	15.1	16.5	17.4	16.1	16.6	16.2	15.4				<b>Accepta ble</b>
	2	4	8	7	8	3	3	1	5				
SD	3.79	4.39	6.40	7.81	7.32	6.40	7.06	6.55	6.38				
CV%	32.6	32.7	42.2	47.1	41.8	39.7	42.5	40.4	41.3				
	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>			

<b>Correlation (COR) – Pixel to image grayscale similarity</b>										Mea n	SD	CV %	Cronbac h's α [95%CI]
0 dB	0.00 094	0.00 078	0.00 076	0.00 082	0.00 093	0.00 099	0.00 100	0.00 100	0.00 100	0.00 091	0.00 010	10.9 S	
5 dB	0.00 100	0.00 089	0.00 082	0.00 083	0.00 079	0.00 075	0.00 079	0.00 083	0.00 089	0.00 084	0.00 008	9.0 S	
10 dB	0.00 077	0.00 068	0.00 055	0.00 052	0.00 051	0.00 057	0.00 060	0.00 061	0.00 063	0.00 060	0.00 008	13.5 S	0.49 [0.01- 0.90]
Mean	0.00 090	0.00 079	0.00 071	0.00 072	0.00 074	0.00 077	0.00 080	0.00 081	0.00 084				<b>Unacce ptable</b>
SD	0.00 012	0.00 011	0.00 014	0.00 017	0.00 021	0.00 021	0.00 020	0.00 020	0.00 019				
CV%	13.4 S	13.4 S	20.1 M	24.0 M	28.6 M	27.2 M	24.9 M	24.2 M	22.9 M				

<b>Entropy (ENT) – Texture disorder</b>										Mea n	SD	CV %	Cronbac h's α [95%CI]
0 dB	5.36 4	5.48 6	5.64 4	5.75 9	5.78 2	5.76 8	5.78 6	5.69 6	5.52 3	5.64 5	0.15	2.7 S	
5 dB	5.15 0	5.46 3	5.64 3	5.86 5	6.06 7	6.31 8	6.36 1	6.36 9	6.37 8	5.95 7	0.45	7.6 S	
10 dB	6.00 8	6.48 9	6.79 7	6.95 2	7.04 1	7.03 6	7.05 8	7.03 4	6.98 4	6.82 2	0.36	5.2 S	0.86  [0.76- 0.94]
Mean	5.50 7	5.81 3	6.02 8	6.19 2	6.29 7	6.37 4	6.40 2	6.36 6	6.29 5				<b>Good</b>
SD	0.44 7	0.58 6	0.66 6	0.66 0	0.66 0	0.63 6	0.63 7	0.66 9	0.73 4				
CV%	8.1 S	10.1 S	11.1 S	10.7 S	10.5 S	9.9 S	10.0 S	10.5 S	11.7 S				

Inverse difference moment (IDM) – Texture homogeneity of pixel pairs										Mea n	SD	CV %	Cronbac h's $\alpha$ [95%CI]
0 dB	0.54 9	0.53 4	0.52 0	0.50 3	0.49 9	0.50 0	0.49 5	0.51 0	0.53 5	0.51 6	0.01 9	3.7 S	
5 dB	0.56 1	0.52 9	0.51 9	0.48 7	0.46 4	0.44 6	0.44 1	0.44 1	0.43 4	0.48 0	0.04 6	9.6 S	
10 dB	0.46 7	0.41 6	0.38 8	0.36 7	0.35 9	0.36 0	0.35 4	0.36 3	0.36 6	0.38 2	0.03 7	9.8 S	0.87  [0.71- 0.96]
Mean	0.52 6	0.49 3	0.47 6	0.45 2	0.44 1	0.43 5	0.43 0	0.43 8	0.44 5				<b>Good</b>
SD	0.05 1	0.06 6	0.07 6	0.07 4	0.07 3	0.07 0	0.07 2	0.07 4	0.08 5				
CV%	9.7 S	13.5 S	16.0 M	16.5 M	16.5 M	16.2 M	16.7 M	16.9 M	19.1 M				

dB=decibels, SD=standard deviation, CV%=coefficient of variation as a percentage,  $\alpha$ =alpha, CI=confidence intervals. S, M, L=small, moderate, and large variability, respectively