



# Advanced Magnetic Resonance Imaging Techniques of knee joint in Osteoarthritis

## **Essay**

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التقنيات الحديثة في فحص الرنين المغناطيسي  
لتصوير الغضاريف في حالات خشونة مفصل  
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## List of Abbreviations

<b>ACL</b>	: Anterior Cruciate Ligament
<b>ADC</b>	: Apparent diffusion coefficient
<b>AMB</b>	: Anteromedial bundle
<b>BFT</b>	: biceps femoris tendon
<b>BMI</b>	: Body Mass index
<b>Bo</b>	: Main magnetic field
<b>BSSFP</b>	: Balanced Steady state free precession
<b>CEST</b>	: Chemical exchange saturation transfer
<b>CNR</b>	: Contrast-to- noise ratio
<b>DEFT</b>	: Driven equilibrium Fourier transform
<b>DESS</b>	: Dual-echo steady-state
<b>dGEMRIC</b>	: Delayed gadolinium enhanced MR imaging of cartilage
<b>DWI</b>	: Diffusion-weighted imaging
<b>FCD</b>	: Fixed charge density
<b>FEMR</b>	: Fluctuating equilibrium MRI
<b>FLASH</b>	: Fast low-angle shot

<b>FOV</b>	: Field of view
<b>FSE</b>	: Fast spin echo
<b>GAGs</b>	: Glycosaminoglycans
<b>GRE</b>	: Gradient recalled echo
<b>IDEAL</b>	: Iterative decomposition of water and fat with echo asymmetry and least-squares estimation
<b>IDEAL</b>	: Iterative decomposition of water and fat with echo asymmetry and least square estimation.
<b>IL</b>	: Interleukin
<b>JSN</b>	: Joint space narrowing
<b>JSW</b>	: Joint Space Width
<b>KOSS</b>	: Knee osteoarthritis scoring system
<b>LCL</b>	: Lateral collateral ligament
<b>MCL</b>	: Medial collateral ligament
<b>MPR</b>	: Multiplanar reformation
<b>MRI</b>	: Magnetic resonance imaging
<b>NHANES</b>	: National Health and Nutrition Examination Survey

<b>OA</b>	⋮ Osteoarthritis
<b>OAI</b>	⋮ Osteoarthritis initiative
<b>PCL</b>	⋮ Posterior Cruciate Ligament
<b>PD</b>	⋮ Proton density
<b>PDS</b>	⋮ Power Doppler signal
<b>PG</b>	⋮ Proteoglycans
<b>PLB</b>	⋮ Postero lateral bundle
<b>PT</b>	⋮ Popliteus Tendon
<b>SAR</b>	⋮ Specific absorption rate
<b>SL</b>	⋮ Spin-lock
<b>SNR</b>	⋮ Signal-to-noise ratio
<b>SPACE</b>	⋮ Sampling perfection with application- optimized contrast using different flip- angle evolutions
<b>SPECT</b>	⋮ Single photon emission computed tomography
<b>SPGR</b>	⋮ Spoiled Gradient-Recalled Echo
<b>SQ</b>	⋮ Semiquantitative
<b>SSFP</b>	⋮ Steady state free precession

<b>STIR</b>	:	Short time inversion recovery
<b>T</b>	:	Tesla
<b>TE</b>	:	Echo time
<b>TNF</b>	:	Tumor necrosis factor
<b>TR</b>	:	Repetition time
<b>TSE</b>	:	Turbo spin- echo
<b>US</b>	:	Ultrasound
<b>VIPR</b>	:	Vastly interpolated projection reconstruction imaging
<b>WORMS</b>	:	Whole-organ magnetic resonance imaging score
<b>2DSE</b>	:	2 dimension spin -echo
<b>3DGRE</b>	:	3 dimension Gradient- recalled echo

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