



Category	Spatial Relevance
• Laterality & Bilateral Symmetry	<ul style="list-style-type: none"> <li>Consistent left-right anatomical grounding relative to the sagittal midline; prevents laterality inversion and side hallucination.</li> </ul>
• Longitudinal (Vertical) Position	<ul style="list-style-type: none"> <li>Requires volumetric integration along the superior-inferior axis and enforces slice-level consistency across the 3D stack.</li> </ul>
• Anterior-Posterior (Depth) Relations	<ul style="list-style-type: none"> <li>Preserves depth cues and front-back anatomical arrangement essential for compartment-level reasoning.</li> </ul>
• Medial-Lateral Orientation (Centricity)	<ul style="list-style-type: none"> <li>Maintains stable central-peripheral localization and global anatomical reference frames.</li> </ul>
• Adjacency & Containment	<ul style="list-style-type: none"> <li>Encodes topological relations, distinguishing touching from containment within anatomical boundaries.</li> </ul>
• Spatial Extent & Boundaries	<ul style="list-style-type: none"> <li>Tracks spatial continuity, confinement, and compartment crossing to model disease spread accurately.</li> </ul>