

Drug	MAC	Blood: Gas partition coefficient	Vaporizer concentration range	Scattered notes
Isoflurane	1.2 %	1.4	0-5%	<ul style="list-style-type: none"> <li>• Halogenated methyl ethyl ether</li> <li>• Nonflammable, pungent (not used for induction)</li> </ul>
Sevoflurane	2.0%	0.65	0-8 %	<ul style="list-style-type: none"> <li>• Fluorinated methyl-isopropyl ether.</li> <li>• Non pungency and relatively low MAC → most common for inhalational induction.</li> <li>→ Degraded by alkali (barium hydroxide lime, soda lime), producing nephrotoxic end products (compound A)</li> </ul>
Desflurane	6 %	0.45	0-18%	<ul style="list-style-type: none"> <li>• Halogenated Ether.</li> <li>• High SVP which requires special vaporizer.</li> <li>• Low solubility → rapid onset and offset</li> <li>→ Degraded by desiccated CO<sub>2</sub> absorbent into carbon monoxide</li> </ul>
Halothane	0.75 %	2.3	0-5 %	<ul style="list-style-type: none"> <li>• Halogen substituted ethane.</li> <li>• Nonflammable. Sensitive to light (dark bottles).</li> <li>• Most potent inhalational anesthetic</li> <li>• Very soluble in blood and adipose → Prolonged emergence</li> <li>→ Oxidized in liver by cytochrome P-450 2E1 to trifluoroacetic acid</li> <li>لا توضع راسك بتسوي (Hepatitis من الآخر)</li> </ul>
Nitrous Oxide	105 %	0.47	--	<p>The only inorganic anesthetic gas in clinical use.</p> <ul style="list-style-type: none"> <li>• Inert nature with minimal metabolism.</li> <li>• Colorless, odorless, tasteless. Weak Anesthetic good analgesic agent.</li> <li>• Does not trigger malignant hyperthermia</li> <li>• Inhibits vitamin B-12 metabolism</li> <li>• Diffusion into closed spaces</li> </ul> <p><u>Contraindications</u></p> <ul style="list-style-type: none"> <li>◦ N<sub>2</sub>O diffuse into the cavity more rapidly than air (principally N<sub>2</sub>) diffuse out Pneumothorax, air embolism, acute intestinal obstruction, intracranial air, pulmonary air cysts, intraocular air bubbles, tympanic membrane grafting</li> <li>◦ Avoided in pulmonary hypertension</li> </ul> <p>(سلايد 31 شوف ال)</p> <p><u>second gas effect</u></p>
Xenon (تذكر معتز كان يقول الوضع زينون يعني لوز) Perfect gas	71%			<ul style="list-style-type: none"> <li>• Nonexplosive, non-pungent, odorless and chemically inert</li> <li>• No metabolism and low toxicity</li> <li>• High cost</li> <li>• It has some analgesic effect.</li> </ul>

				<ul style="list-style-type: none"><li>• Reduces anesthesia-emergent nausea and vomiting</li><li>• Very close to the 'ideal agent'</li><li>• Minimal hemodynamic effects.</li><li>• Seems not to trigger malignant hyperthermia.</li></ul>
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**-Note :colors is matched to the slides**