

Examination	Radiopharm.	Isotop	Pharmakokinetics	Indication	Patient preparation
bones	biphosponates (MDP, HDP...)	^{99m} Tc	binds on hydroxyapatit crystals osteoblastic activity	meta, inflammation... bones	hydration
kidney	MAG3	^{99m} Tc	tubular excretion	tubular function, obstruction	hydration
	DTPA	^{99m} Tc	glomerular filtration	glomerular function	hydration
	DMSA	^{99m} Tc	fixation in tubular cells	tubular function, parenchym	hydration
myocardium	MIBI (ev. TF)	^{99m} Tc	fixation in mitochondrias	CAD, viability, measuring EF	discontinue BB, metylxant. (tea, coffee) before stress
	thalium (TI)	²⁰¹ Tl	K ⁺ analogue	like MIBI	like MIBI
	FDG (PET)	¹⁸ F	glucose analogue	myocardial viability	insuline clamp
lungs	MAA	^{99m} Tc	embolisation<0,1% lung. capill.	lung emboly (perfusion), flebogr.	0
	Krypton	^{81m} Kr	gas inhalation	lung emboly (ventilation)	0
thyroid	Technecistan, iodine	^{99m} Tc, ¹²³ I	iodine analogues	functional autonomy, goiter parathyroid subtraction	discontinue thyroxin thyreostatics, iodine!
parathyroid	MIBI (TF) + Tc	^{99m} Tc	see higher	hyperparathyroidism	like thyroid
brain	HMPAO (ECD)	^{99m} Tc	fixation in astrocytes	perfusion, EPI focus, brain death	0
	Datscan (=ioflupan)	¹²³ I	presynaptic dopamin receptors	Parkinsonism	thyroid block (chlorigen)
lymphatics	colloids	^{99m} Tc	lymphatic transport	lymfoscintigraphy, sentinel node	0
inflammation	labelled leukocytes (HMPAO, antibodies)	¹¹¹ In ^{99m} Tc	fixation in leukocytes	proof of inflammation	fasting
neuroendocrine tumors	Octreoscan	¹¹¹ In	somatostatine receptors	neuroendocrine tumors	peristaltics stimulation
	MIBG	¹²³ I	adrenal hormones synthesis	pheochromocytoma	(laxatives)
PET	FDG	¹⁸ F	glucose analogue	oncology, cardiology, neurology	fasting, bl. sugar<10
	Choline	¹⁸ F	cell wall incorporation	tumors (prostata, hepatocel. Ca)	fasting (CT contrast)
	Aminoacids (FET)	¹⁸ F	proteosynthesis	tumors (brain)	fasting (CT contrast)