

MRI examination

The basis consists of a defined examination protocol, the native whole-body MRI.

The sequences of the whole-body protocol are described in the following table. The whole-body MRI protocol does not include the administration of an MRI contrast agent. It includes a comprehensive diagnosis of the skeletal system (including the spine), the head, the neck, the lungs and the abdomen. The whole-body protocol is performed in the supine position.

Body region	Sequence name **	TR in ms	TE in ms	SD in mm	Time in minutes
Localizer	GK_FastView	3:31	2:19	5	0:48
Whole body	gre_GK_3_5E_80S_MP	12	2.38 4.40 6.42 8.44 10.46	5	1:45
Whole body	GK_t2_tirm_cor_300_p2	4900	67	5	6:31
Spine	WS_T2_tse_sag	3760	106	4	2:04
Head	Kopf_T2_tse_tra	5930	102	5	1:42
Head	Kopf_T2_spc_irprep_tra_dark -fluid_p2	5000	325	3	3:47
Head	Kopf_T1_mpr_tra_iso_p2	1900	3:37	1	3:38
Head	Kopf_T2_swi3d_tra_p2_fast	49	40	3	2:35
Head	Kopf_TOF_3d_multi_slab	23	7	0.7	3:23
Neck	Hals_T2_tse_tra_p2	7390	72	4	5:19
Thorax	Thorax_vibe_no-fs_tra_bh	3:05	1:12	3	0:21
Thorax	T2_haste_tra_bh_p2	550	22	5	0:40
Abdomen	Oberbauch_T2_blade_fs_tra_ mbh_p2 Atemtriggerung	2720	116	6	1:16

Body region	Sequence name **	TR in ms	TE in ms	SD in mm	Time in minutes
Abdomen	MRCP_T2_tse3d_rst_cor_p2_ 384	957	622	1.5	1:42
Abdomen	Abdomen_T1_fl2d_fs_tra_mb h_Abd	251	4:13	6	1:17
Abdomen	Gre_dixon_fatty Liver	12	2:38	3	0:19
Abdomen	Körperstamm_T1_vibe_tra_p2 _dixon	7:48	2:38	5	0:38
Pelvis	Becken_pd_tse_fs_tra_384_p 2	3230	34	3	2:43

This program results in a total measuring time of 60-70 minutes under optimum conditions. Even if the pure measuring time is less than 60-70 minutes, the independent adjustment of the table and the insertion of the layers must be taken into account, for example. In the abdominal examination in particular, the measurement time is linked to the respiratory rate, so that this can vary by +/- 8 minutes from subject to subject.