**Figure S1.** (A) Coil arrangements of the 1-channel transmit and 28-channel receive knee coil. Placement of insertable coils with diameters of (B) 26 mm (D26) and (C) 64 mm (D64) inside of the knee coil with (top) and without (bottom) the upper knee coil element. No wiring for the D26 and D64 coils is required. Ant: anterior, P: posterior, L: left, R: right, S: superior and I: inferior.

**Figure S2.** The wired coil. (A) A view of the wired phased-array 8-channel receive coil with inner diameter of 55 mm (D55 coil). (B) An equivalent schematic diagram of a coil element is illustrated by the authors, because the circuit diagram of the D55 coil was not available from the manufacturer. The D55 coil consists of the same 8 elements.
Figure S3. SNR maps of the (A) D55 wired and (B) D64 insertable coils relative to the phantom image SNR acquired using the 28-channel knee coil.