

Parametric values for [18F]NaF kinetics of the knee at rest and after exercise

<u>Rest</u>	Patella - Subchondral	Femur- Subchondral	Tibia- Subchondral	Tendon insert	Femur- Cortical (Shaft)	Tibia- Cortical (Shaft)	Femur- Trabecular	Tibia- Trabecular
SUV	0.7 (0.43 - 1.02)	0.52 (0.38 - 0.94)	0.52 (0.37 - 0.85)	0.89 (0.58 - 1.14)	0.78 (0.55 - 1.03)	0.84 (0.7 - 0.91)	0.4 (0.27 - 0.79)	0.52 (0.35 - 0.71)
SUV_{max}	1.93 (1.18 - 2.59)	2.49 (1.91 - 3.11)	1.98 (1.35 - 2.54)	3.0 (2.09 - 4.6)	3.12 (2.51 - 3.62)	2.24 (1.91 - 2.8)	1.35 (0.85 - 1.73)	1.4 (1.12 - 1.63)
K_i^{NLR} mL/min/100mL	0.81 (0.44 - 1.09)	0.56 (0.43 - 1.0)	0.6 (0.4 - 0.93)	1.07 (0.72 - 1.4)	0.82 (0.61 - 1.1)	0.87 (0.76 - 0.98)	0.43 (0.27 - 0.82)	0.58 (0.41 - 0.81)
K₁ mL/min/100mL	0.86 (0.52 - 1.13)	0.66 (0.47 - 1.17)	0.64 (0.41 - 1.04)	1.29 (0.74 - 1.6)	1.67 (1.22 - 2.42)	1.88 (1.34 - 2.19)	0.44 (0.29 - 0.94)	0.67 (0.46 - 1.11)
k₃/ (k₃+k₂)	0.97 (0.91 - 0.99)	0.95 (0.92 - 0.97)	0.98 (0.92 - 0.99)	0.95 (0.9 - 0.96)	0.51 (0.43 - 0.61)	0.48 (0.41 - 0.56)	0.98 (0.94 - 0.99)	0.89 (0.78 - 0.98)
K_i^{pat} mL/min/100mL	0.69 (0.38 - 0.99)	0.51 (0.33 - 0.9)	0.5 (0.34 - 0.81)	0.94 (0.64 - 1.31)	0.62 (0.48 - 0.95)	0.67 (0.58 - 0.77)	0.38 (0.23 - 0.73)	0.49 (0.33 - 0.63)
Perf mL/min/100mL	0.86 (0.52 - 1.13)	0.66 (0.47 - 1.17)	0.64 (0.41 - 1.04)	1.29 (0.74 - 1.6)	1.67 (1.22 - 2.42)	1.88 (1.34 - 2.19)	0.44 (0.29 - 0.94)	0.67 (0.46 - 1.11)
Blood (%vol)	0.04 (0.03 - 0.06)	0.07 (0.05 - 0.13)	0.05 (0.03 - 0.07)	0.05 (0.04 - 0.06)	0.38 (0.22 - 0.64)	0.35 (0.27 - 0.48)	0.06 (0.04 - 0.08)	0.09 (0.06 - 0.12)

Supplementary Table 1 **Parametric values for bone tissues of the patella, tibia and femur at rest.**

Median parametric values from different bone tissue with interquartile range in parenthesis. Measures are further divided into the tibial, femoral and patellar bones.

<u>Post-Exercise</u>	Patella	Femur-Subchondral	Tibia-Subchondral	Femur-Shaft	Tibia-Shaft	Femur-Trabecular	Tibia-Trabecular	Tendon insert
SUV	2.34 (1.16 - 3.23)	1.2 (0.96 - 1.9)	1.2 (1.04 - 1.72)	1.26 (0.88 - 1.42)	1.13 (0.94 - 1.33)	1.03 (0.79 - 1.45)	1.03 (0.87 - 1.36)	1.8 (1.21 - 2.54)
SUV_{max}	6.11 (3.55 - 7.89)	4.9 (3.95 - 7.82)	4.52 (4.08 - 4.79)	4.28 (3.59 - 5.17)	3.21 (2.48 - 4.44)	2.5 (2.12 - 2.95)	2.53 (1.75 - 3.09)	5.94 (4.49 - 10.1)
K_i^{NLR} mL/min/100mL	1.83 (1.22 - 2.89)	1.15 (0.81 - 1.67)	1.22 (0.89 - 1.63)	1.03 (0.92 - 1.27)	0.99 (0.81 - 1.15)	0.99 (0.7 - 1.36)	0.96 (0.86 - 1.23)	2.14 (1.43 - 2.8)
K₁ mL/min/100mL	2.93 (1.87 - 4.68)	1.64 (1.26 - 2.64)	1.77 (1.3 - 2.55)	2.62 (2.23 - 3.71)	3.85 (2.99 - 4.77)	1.58 (0.9 - 2.33)	1.71 (1.41 - 3.06)	3.71 (2.0 - 4.01)
k₃/ (k₃+k₂)	0.63 (0.55 - 0.9)	0.75 (0.56 - 0.85)	0.71 (0.53 - 0.91)	0.4 (0.32 - 0.47)	0.24 (0.2 - 0.37)	0.76 (0.53 - 0.94)	0.58 (0.38 - 0.89)	0.7 (0.52 - 0.84)
K_i^{pat} mL/min/100mL	1.63 (1.08 - 2.5)	0.98 (0.66 - 1.39)	0.98 (0.76 - 1.28)	0.84 (0.73 - 1.02)	0.77 (0.64 - 0.92)	0.83 (0.6 - 1.11)	0.82 (0.68 - 1)	1.7 (1.26 - 2.19)
Perf mL/min/100mL	2.93 (1.87 - 4.68)	1.64 (1.26 - 2.64)	1.77 (1.3 - 2.55)	2.62 (2.23 - 3.71)	3.85 (2.99 - 4.77)	1.58 (0.9 - 2.33)	1.71 (1.41 - 3.06)	3.71 (2.0 - 4.01)
Blood (%vol)	1.05 (0.72 - 1.36)	0.94 (0.83 - 1.57)	0.86 (0.74 - 1.38)	1.9 (1.47 - 2.34)	1.49 (1.2 - 1.86)	0.91 (0.74 - 1.27)	1.03 (0.68 - 1.44)	1.2 (0.91 - 1.52)

Supplementary Table 2 **Post exercise parametric values for different bone - tissue type combinations**

Median parametric values from different bone tissue with interquartile range in parenthesis. Parameters obtained from dynamic scan started on average 8 minutes after step-up drop-land exercise.

