

# Investigation on the influence of the skin tone on Hyperspectral Imaging for free flap surgery

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## Supplement 3:

Significant differences of the tissue indices between the F-Classes at different body sites

body site	tissue indices	F-Classes	p-value
neck (n=101)	NIR-index	V vs. IV	0.025
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		VI vs. II	0.008
		VI vs. I	<0.001
		StO2	V vs. IV
	V vs. III		< 0.001
	V vs. II		< 0.001
	V vs. I		< 0.001
	IV vs. III		0.043
	IV vs. II		0.033
	IV vs. I		0.048
	THI	V vs. IV	0.004
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	<0.001
		IV vs. I	0.005
	TWI	V vs. IV	0.014
		V vs. III	< 0.001
		V vs. II	< 0.001
V vs. I		< 0.001	
IV vs. II		0.024	
lumbar back right (n=100)	NIR-index	V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. II	< 0.001
		IV vs. I	< 0.001
		III vs. I	0.013
		StO2	V vs. IV
	V vs. III		< 0.001
	V vs. II		< 0.001
	V vs. I		< 0.001
	IV vs. II		0.001
	THI	IV vs. I	0.019
		V vs. IV	0.039
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
	IV vs. II	< 0.001	

		IV vs. I	0.001
	TWI	V vs. IV	0.003
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
lumbar back left (n=100)	NIR-index	V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. III	0.024
		IV vs. II	< 0.001
		IV vs. I	< 0.001
	StO2	V vs. IV	0.022
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. II	0.003
		IV vs. I	0.024
	THI	V vs. IV	0.035
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. II	0.001
		IV vs. I	< 0.001
		III vs. I	0.045
	TWI	V vs. IV	0.012
V vs. III		< 0.001	
V vs. II		< 0.001	
V vs. I		0.003	
IV vs. III		0.018	
IV vs. II		0.047	
dorsum of hand right (n=101)	NIR-index	V vs. IV	0.012
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		VI vs. II	0.012
		VI vs. I	0.001
	StO2	V vs. IV	0.003
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. II	0.05
	THI	V vs. IV	0.001
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. I	0.016
	TWI	V vs. IV	0.004
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
IV vs. I		0.029	
dorsum of hand left (n=101)	NIR-index	V vs. IV	0.014
		V vs. III	< 0.001

		V vs. II	< 0.001
		V vs. I	< 0.001
		VI vs. II	0.003
		VI vs. I	0.001
	StO2	V vs. IV	0.003
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. II	0.026
	THI	V vs. IV	0.001
		V vs. III	<0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
	TWI	V vs. IV	0.003
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. I	0.018
forearm right (n=101)	NIR-index	V vs. IV	0.025
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. II	0.002
		IV vs. I	0.036
	StO2	V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	0.009
		IV vs. II	0.022
	THI	V vs. IV	0.004
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. I	0.033
	TWI	V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. I	0.006
forearm left (n=101)	NIR-index	V vs. IV	0.006
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. II	0.037
		IV vs. I	0.002
	StO2	V vs. IV	0.009
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	0.001
	THI	V vs. IV	0.005
		V vs. III	< 0.001
		V vs. II	< 0.001
		V vs. I	< 0.001
		IV vs. I	0.001
	TWI	V vs. IV	0.013

		V vs. III	< 0.001	
		V vs. II	0.001	
		V vs. I	< 0.001	
		IV vs. I	0.028	
dorsum of foot right (n=99)	NIR-index	V vs. IV	0.05	
		V vs. III	< 0.001	
		V vs. II	< 0.001	
		V vs. I	< 0.001	
		VI vs. II	< 0.001	
		VI vs. I	0.001	
	StO2	V vs. IV	0.001	
		V vs. III	< 0.001	
		V vs. II	< 0.001	
		V vs. I	< 0.001	
	THI	V vs. III	< 0.001	
		V vs. II	< 0.001	
		V vs. I	< 0.001	
		IV vs. III	0.025	
		IV vs. II	0.001	
		IV vs. I	0.005	
	TWI	V vs. IV	0.001	
		V vs. III	< 0.001	
V vs. II		< 0.001		
V vs. I		< 0.001		
IV vs. I		0.043		
dorsum of foot left (n=100)	NIR-index	V vs. III	< 0.001	
		V vs. II	< 0.001	
		V vs. I	< 0.001	
		VI vs. II	< 0.001	
		VI vs. I	< 0.001	
	StO2	V vs. IV	0.02	
		V vs. III	< 0.001	
		V vs. II	< 0.001	
		V vs. I	< 0.001	
	THI	V vs. IV	0.048	
		V vs. III	< 0.001	
		V vs. II	< 0.001	
		V vs. I	< 0.001	
		IV vs. II	0.002	
		IV vs. I	0.004	
	TWI	V vs. IV	0.001	
		V vs. III	< 0.001	
V vs. II		< 0.001		
V vs. I		< 0.001		
IV vs. I		0.042		
abdomen (n=101)	NIR-index	V vs. IV	0.027	
		V vs. III	< 0.001	
		V vs. II	< 0.001	
		V vs. I	< 0.001	
		VI vs. II	0.001	
		VI vs. I	< 0.001	
	StO2	V vs. IV	0.029	
		V vs. III	< 0.001	

	V vs. II	< 0.001
	V vs. I	< 0.001
THI	V vs. IV	0.041
	V vs. III	< 0.001
	V vs. II	< 0.001
	V vs. I	< 0.001
	IV vs. II	< 0.001
	IV vs. I	< 0.001
TWI	V vs. IV	0.02
	V vs. III	< 0.001
	V vs. II	< 0.001
	V vs. I	< 0.001