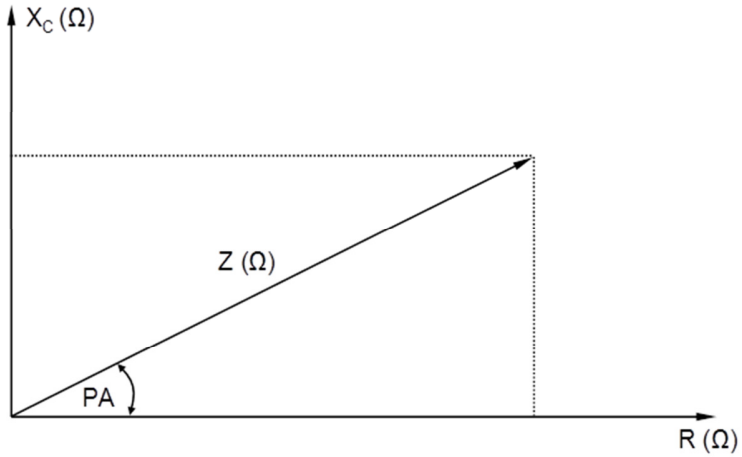
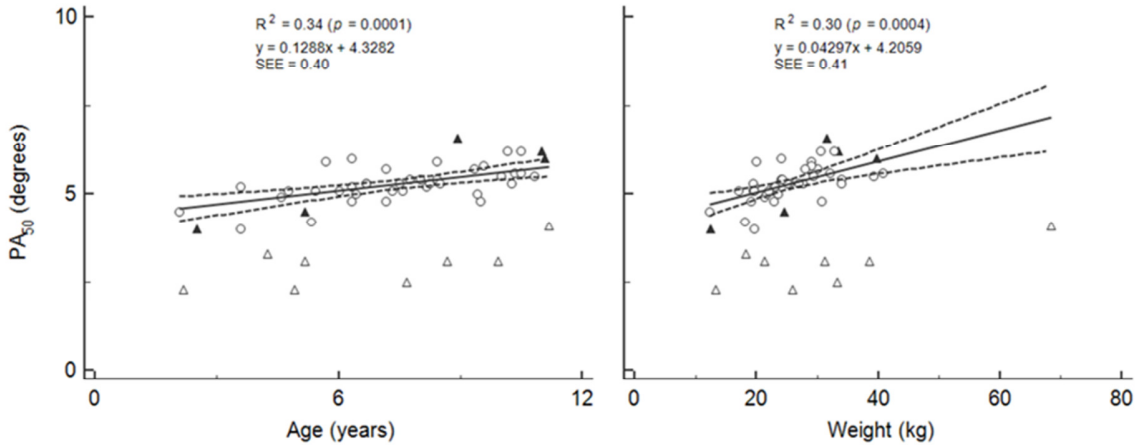
Figure S1: Raw impedance data in the impedance plane.



The relationship between capacitive reactance (X_C), resistance (R), impedance (Z) in Ohms (Ω) and phase angle (PA) in degrees.

Figure S2: Relationship between phase angle and participants' age and weight.



Δ: ANS, ▲: NSR, ○: HC; For group and impedance descriptions, see Table 1; Regression lines are based on the HC data.

Table S1: Characteristics of the study subjects.

Group /Parameter	Sex	Age (years)	Study weight (kg)	Height (cm)	BMI (kg/m^2)
ANS	7 M: 1 F	6.7 ± 3.1	31.3 ± 17.1	120.7 ± 21.1	20.1 ± 4.6
ANS*	4 M: 1 F	6.8 ± 3.1	28.5 ± 9.6	120.3 ± 21.8	19.1 ± 1.5
NSR	4 M: 1 F	7.7 ± 3.8	28.3 ± 10.4	126.1 ± 26.2	17.3 ± 2.0
HC	23 M: 15 F	7.5 ± 2.2	25.3 ± 6.2	126.4 ± 14.2	15.6 ± 1.2

Data are means ± SD; For group definitions (ANS, ANS*, NSR, HC), see Table 1; BMI: body mass index.

Table S2: Clinical data for the ANS patients.

Patients (No.) /Parameters	**Sex**	BP (mmHg)	HT[†] (yes/no)	Pulse (bpm)	P-Albumin (g/L)	P-sodium (mmol/L)	P-potassium (mmol/L)	P-creatinine (µmol/L)	eGFR[‡] (ml/min/1.73m^2)	B-Hgb (mmol/L)
Age: 1-4 years										
1*	M	110/70	yes	109	10	139	3.5	18	177	8.5
2	M	88/62	no	97	10	141	3.6	30	123	7.9
3*	M	109/68	no	92	9	137	5.5	24	167	8.1
Age: 5-11 years										
4	M	109/71	yes	155	7	131	3.5	21	195	8.5
5*	F	130/93	yes	77	9	132	4.9	71	65	9.3
6*	M	116/77	no	104	9	129	5.0	50	94	9.4
7*	M	133/73	yes	99	9	137	3.8	56	94	8.7
8	M	109/56	no	102	4	127	3.9	50	108	10.6

Patients in the subgroup ANS, which were re-studied at remission, see Table 1.
BP: blood pressure; HT: hypertension; Hgb: Hemoglobin.
[†]Hypertension defined as blood pressure above the 95% percentile for high and gender.
[‡]eGFR estimated by the Schwartz formula[1]. Reference ranges: P-Albumin (37-48), P-Sodium (137-145), P-potassium (3.5-4.6), B hemoglobin (6.5-8.9).

[1] Schwartz GJ, Muñoz A, Schneider MF, Mak RH, Kaskel F, Warady BA, m.fl. New Equations to Estimate GFR in Children with CKD. J Am Soc Nephrol. 3. januar 2009;20(3):629–37.1).