Supplemental Table 1. Mean (and Peak) T Concentrations

	Dose per Pulse			
Moiety	0.46 µmol (N = 7)	1.4 µmol (N = 9)	4.2 µmol (N = 9)	1.7 µmol* (N = 5)
Total T	9.6 ± 0.97^{B†} (20 ± 2.3)^{A†}	15 ± 1.4^{C†} (35 ± 4.3)^{B†}	21 ± 2.1^{C†} (47 ± 3.7)^{B†}	5.7 ± 1.0^{A†} (12 ± 1.9)^{A†}
SHBG-bound T	6.6 ± 0.87^{AB†} (12 ± 1.8)^{AB†}	8.6 ± 0.97^{BC} (16 ± 2.3)^{AB}	11 ± 1.5^{C} (20 ± 2.7)^{B}	4.0 ± 0.49^{A†} (7.7 ± 0.62)^{A†}
Albumin-bound T	2.7 ± 0.49^{AB} (6.7 ± 1.5)^{A}	5.8 ± 1.0^{BC} (18 ± 3.5)^{B}	8.7 ± 1.2^{C} (25 ± 2.7)^{B}	1.6 ± 0.49^{A} (3.9 ± 1.2)^{A}
Free T	0.25 ± 0.045^{AB} (0.62 ± 0.14)^{A}	0.56 ± 0.094^{BC} (1.7 ± 0.32)^{B}	0.83 ± 0.11^{C} (2.4 ± 0.25)^{B}	0.15 ± 0.045^{A} (0.38 ± 0.11)^{A}
Bioavailable T	2.6 ± 0.45^{AB} (5.9 ± 1.4)^{A}	5.6 ± 0.90^{BC} (15 ± 2.9)^{B}	9.5 ± 1.4^{C} (26 ± 3.4)^{B}	1.7 ± 0.52^{A} (4.2 ± 1.3)^{A}

*Dose of 1.7 µmol was infused over 1 min with no basal T infusion (other doses were infused over 30 min with basal T infusion). Data are mean (and peak) ± SEM T concentrations.

Within rows, means having unshared (unique) alphabetic superscripts differ significantly ($P \leq 0.01$).

Units are nmol/L.

$^{\dagger}P < 0.05$ *vs* all other values in the same column.

Supplemental Table 2. Rapid T Half-Lives (min) by T Moiety and Dose

	Dose per Pulse			
Measure	0.46 µmol (N = 7)	1.4 µmol (N = 9)	4.2 µmol (N = 9)	1.7 µmol (N = 5)
Total T	1.3 (0.51 - 2.9)	2.3 (1.6 - 4.8)	1.1 (0.51 - 2.5)	1.2 (0.0 - 3.1)
SHBG-bound T	1.1 (0.28 - 2.5)	2.0 (1.2 - 4.1)	1.2 (0.54 - 2.7)	1.1 (0.15 - 3.1)
Albumin-bound T	1.3 (0.49 - 2.8)	2.1 (1.2 - 5.0)	1.4 (0.76 - 2.9)	0.96 (0.22 - 2.7)
Free T	1.1 (0.20 - 2.9)	2.1 (1.2 - 5.0)	1.5 (0.81 - 3.2)	0.96 (0.22 - 2.7)
Bioavailable T	1.1 (0.20 - 2.9)	1.6 (0.78 - 4.1)	1.4 (0.78 - 3.0)	0.96 (0.22 - 2.7)
Column Mean	1.2 (0.34 - 2.8)	2.0 (1.2 - 4.6)	1.3 (0.68 - 2.9)	1.0 (0.16 - 2.9)

Data are the geometric mean (95% confidence interval). Half-life units are min. There were no significant effects by T moiety (rows) or by T dose (columns), except for the 1.4 µmol dose (*Results*).

Grand arithmetic mean ± SEM of the four columns, 1.4 ± 0.22 min.

Supplemental Table 3. Slow T Half-Lives (min) by Moiety and Dose

	Dose per Pulse			
Measure	0.46 µmol (N = 7)	1.4 µmol (N = 9)	4.2 µmol (N = 9)	1.7 µmol (N = 5)
Total T	21 (11 - 37)^{A}	27 (22 - 33)^{AB}	31 (25 - 42)^{AB}	27 (19 - 37)^{A}
SHBG-bound T	24 (15 - 39)^{A}	37 (31 - 47)^{B}	36 (29 - 60)^{A}	31 (21 - 42)^{A}
Albumin-bound T	15 (6.1 - 29)^{AB}	17 (11 - 25)^{AC}	21 (15 - 30)^{B}	20 (14 - 27)^{B}
Free T	14 (5.0 - 29)^{AB}	16 (10 - 26)^{AC}	23 (18 - 32)^{B}	20 (14 - 28)^{B}
Bioavailable T	7.0 (4.0 - 12)^{B}*	11 (3.2 - 28)^{C}	18 (14 - 30)^{B}*	20 (14 - 27)^{B}
P values	0.020	< 0.001	0.013	0.027

Data are the geometric mean (95% confidence interval).

Means within columns with unique (unshared) alphabetical superscripts differ at $P < 0.05$ by *post hoc* comparisons. Thus, A differs from B, but not from AB.

*$P = 0.002$ for the comparison by dose within the bioavailable-T row.

Supplemental Table 4. Testosterone Mass per Pulse

	T Pulse Dose			
	0.46 µmol (N = 7)	1.4 µmol (N = 9)	4.2 µmol (N = 9)	1.7 µmol (N = 5)
Total T	17 ± 1.5^{A}	35 ± 3.2^{A}	49 ± 3.1^{A}	9.5 ± 1.5^{A}
SHBG-bound T	10 ± 1.1^{AB}	13 ± 2.1^{BC}	22 ± 4.3^{BC}	6.3 ± 0.69^{AB}
Albumin-bound T	6.7 ± 1.5^{B}	20 ± 3.2^{AC}	31 ± 2.9^{ACE}	2.9 ± 0.90^{B}
Free T	0.62 ± 0.14^{C}	1.9 ± 0.30^{D}	2.8 ± 0.26^{D}	0.28 ± 0.087^{C}
Bioavailable T	8.3 ± 2.0^{B}	22 ± 4.3^{AB}	28 ± 4.1^{BE}	3.2 ± 1.0^{B}
P values	< 0.001	< 0.001	< 0.001	0.001

Data are the mean ± SEM in units of nmol/L.

All T doses (across columns) differed from one another ($P \leq 0.004$).

Within columns, means having unshared (unique) alphabetic superscripts differ significantly ($P \leq 0.01$).