Supplementary Figures

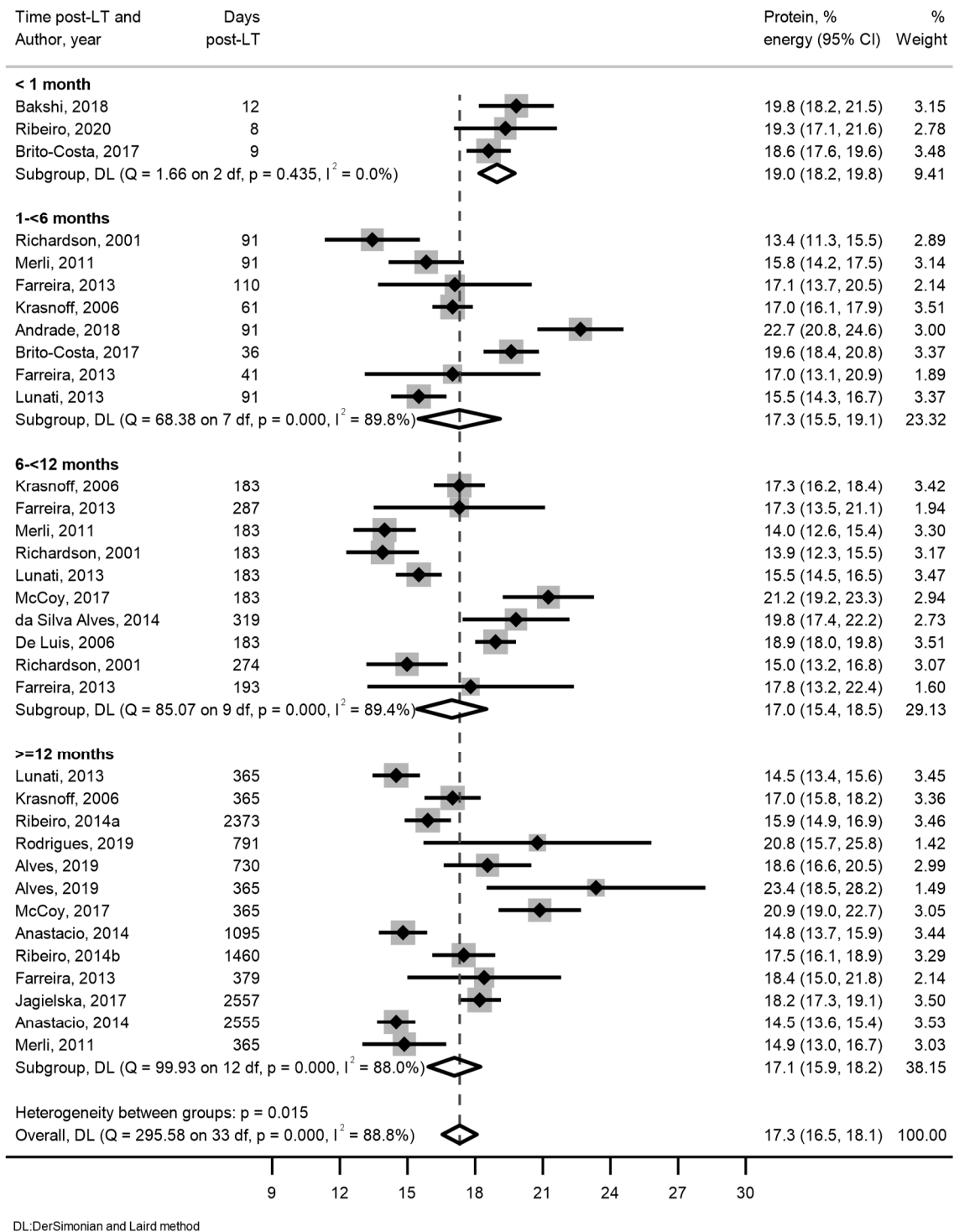| Time post-LT and Author, year	Days post-LT	Protein, % energy (95% CI)	% Weight
< 1 month			
Bakshi, 2018	12	19.8 (18.2, 21.5)	3.15
Ribeiro, 2020	8	19.3 (17.1, 21.6)	2.78
Brito-Costa, 2017	9	18.6 (17.6, 19.6)	3.48
Subgroup, DL (Q = 1.66 on 2 df, p = 0.435, I² = 0.0%)		19.0 (18.2, 19.8)	9.41
1-<6 months			
Richardson, 2001	91	13.4 (11.3, 15.5)	2.89
Merli, 2011	91	15.8 (14.2, 17.5)	3.14
Farreira, 2013	110	17.1 (13.7, 20.5)	2.14
Krasnoff, 2006	61	17.0 (16.1, 17.9)	3.51
Andrade, 2018	91	22.7 (20.8, 24.6)	3.00
Brito-Costa, 2017	36	19.6 (18.4, 20.8)	3.37
Farreira, 2013	41	17.0 (13.1, 20.9)	1.89
Lunati, 2013	91	15.5 (14.3, 16.7)	3.37
Subgroup, DL (Q = 68.38 on 7 df, p = 0.000, I² = 89.8%)		17.3 (15.5, 19.1)	23.32
6-<12 months			
Krasnoff, 2006	183	17.3 (16.2, 18.4)	3.42
Farreira, 2013	287	17.3 (13.5, 21.1)	1.94
Merli, 2011	183	14.0 (12.6, 15.4)	3.30
Richardson, 2001	183	13.9 (12.3, 15.5)	3.17
Lunati, 2013	183	15.5 (14.5, 16.5)	3.47
McCoy, 2017	183	21.2 (19.2, 23.3)	2.94
da Silva Alves, 2014	319	19.8 (17.4, 22.2)	2.73
De Luis, 2006	183	18.9 (18.0, 19.8)	3.51
Richardson, 2001	274	15.0 (13.2, 16.8)	3.07
Farreira, 2013	193	17.8 (13.2, 22.4)	1.60
Subgroup, DL (Q = 85.07 on 9 df, p = 0.000, I² = 89.4%)		17.0 (15.4, 18.5)	29.13
>=12 months			
Lunati, 2013	365	14.5 (13.4, 15.6)	3.45
Krasnoff, 2006	365	17.0 (15.8, 18.2)	3.36
Ribeiro, 2014a	2373	15.9 (14.9, 16.9)	3.46
Rodrigues, 2019	791	20.8 (15.7, 25.8)	1.42
Alves, 2019	730	18.6 (16.6, 20.5)	2.99
Alves, 2019	365	23.4 (18.5, 28.2)	1.49
McCoy, 2017	365	20.9 (19.0, 22.7)	3.05
Anastacio, 2014	1095	14.8 (13.7, 15.9)	3.44
Ribeiro, 2014b	1460	17.5 (16.1, 18.9)	3.29
Farreira, 2013	379	18.4 (15.0, 21.8)	2.14
Jagielska, 2017	2557	18.2 (17.3, 19.1)	3.50
Anastacio, 2014	2555	14.5 (13.6, 15.4)	3.53
Merli, 2011	365	14.9 (13.0, 16.7)	3.03
Subgroup, DL (Q = 99.93 on 12 df, p = 0.000, I² = 88.0%)		17.1 (15.9, 18.2)	38.15
Heterogeneity between groups: p = 0.015			
Overall, DL (Q = 295.58 on 33 df, p = 0.000, I² = 88.8%)		17.3 (16.5, 18.1)	100.00

DL:DerSimonian and Laird method

Figure S1: Mean daily protein intake (percent energy) with 95% confidence intervals from included studies categorised by time post-transplant.
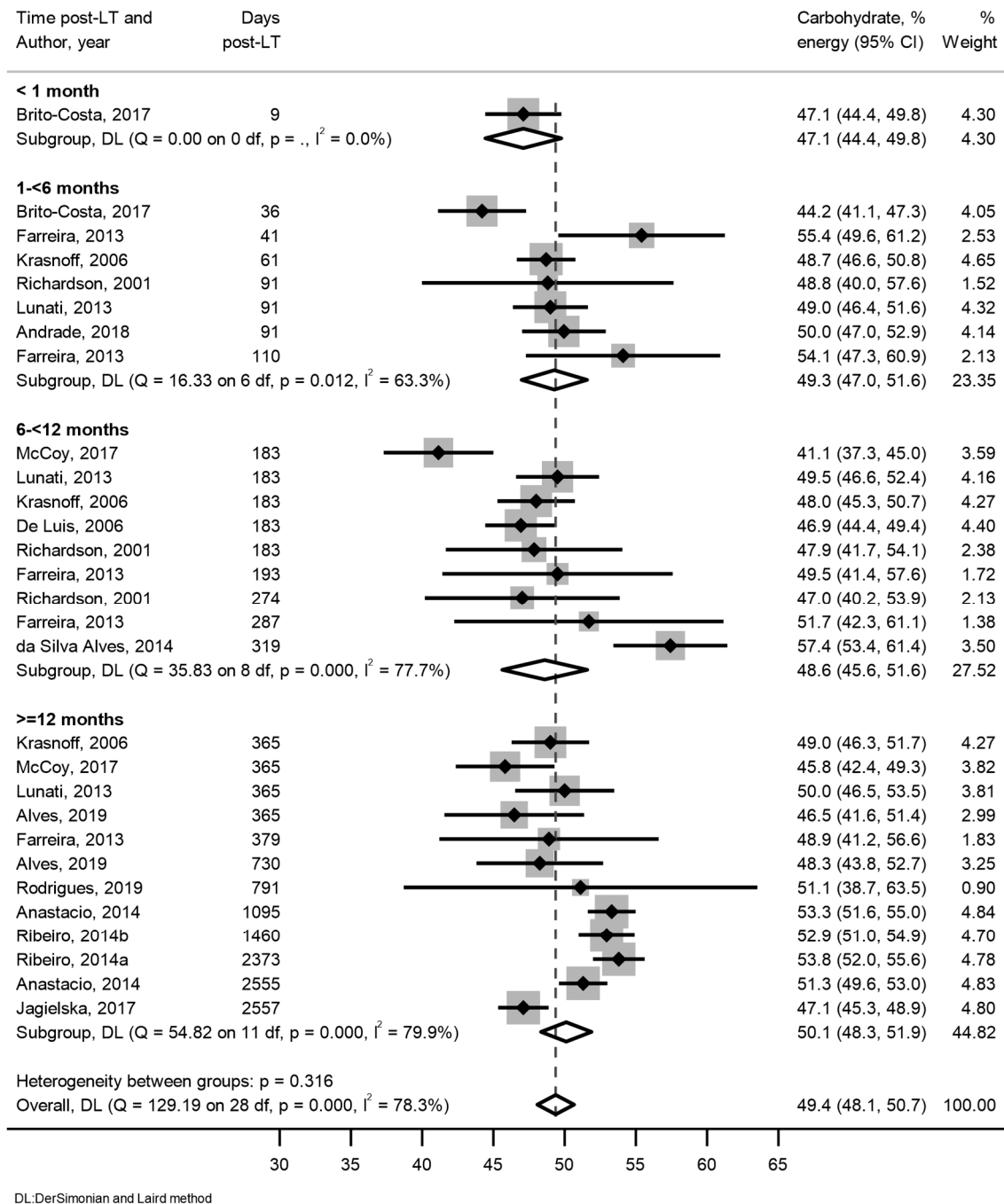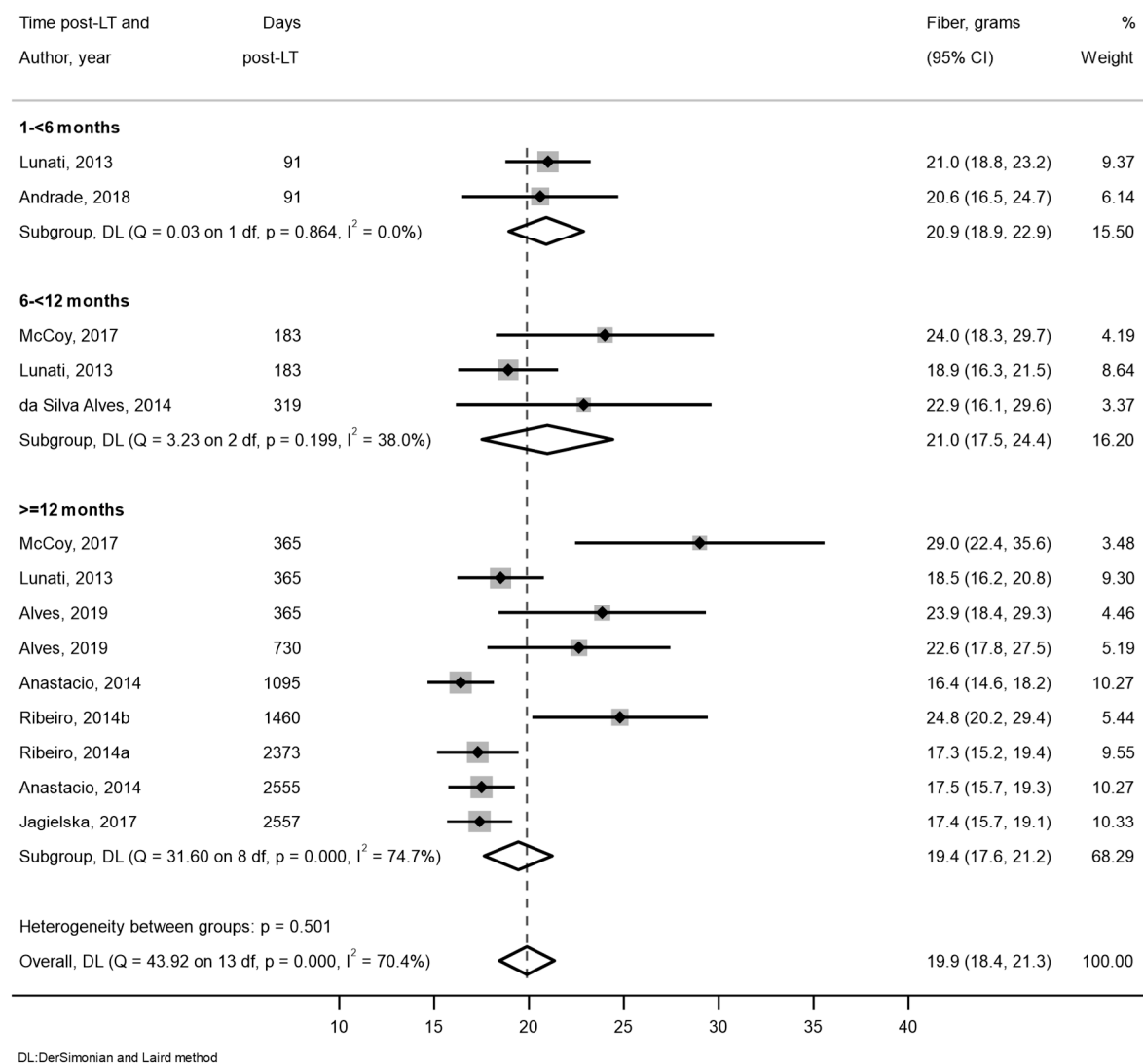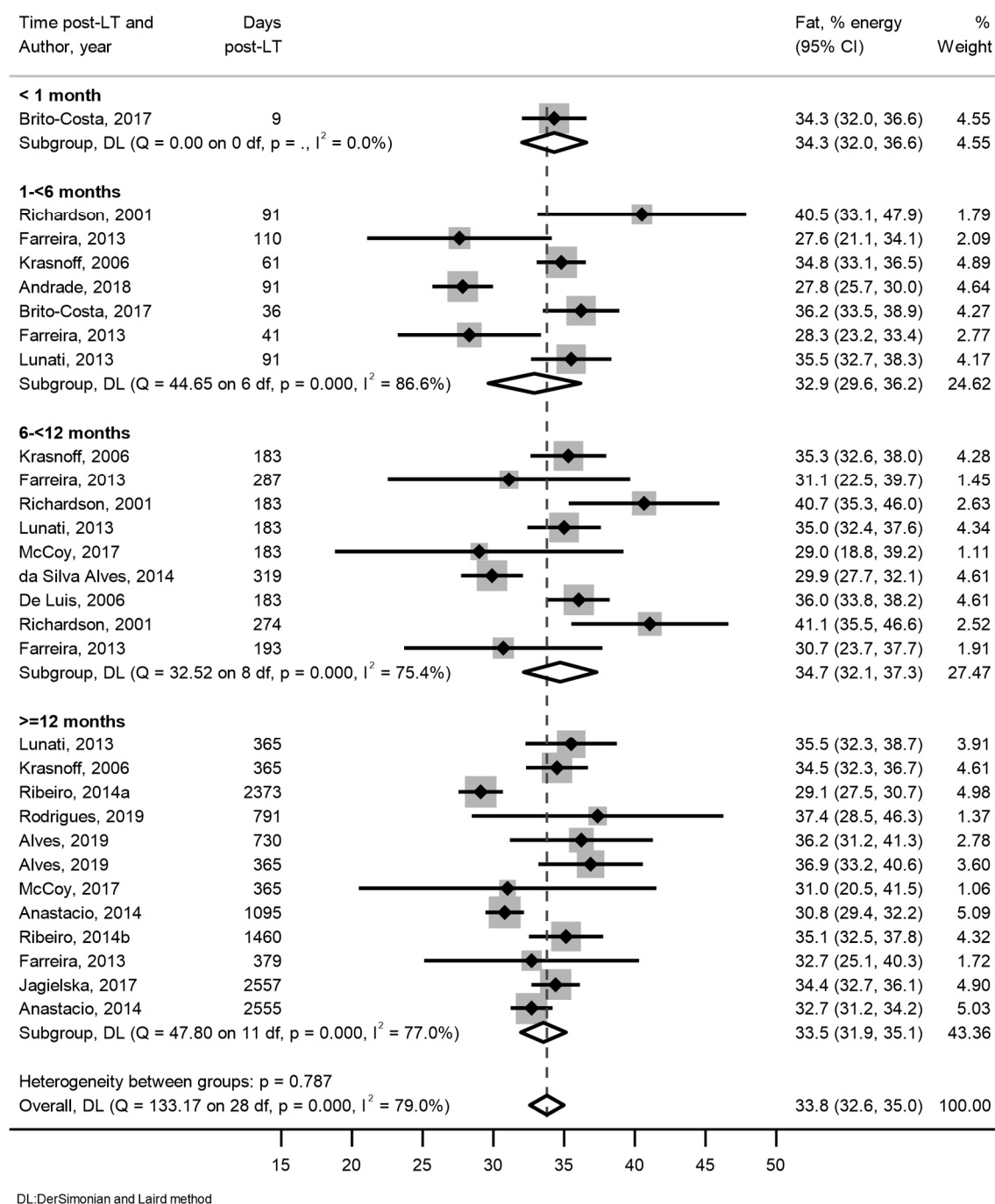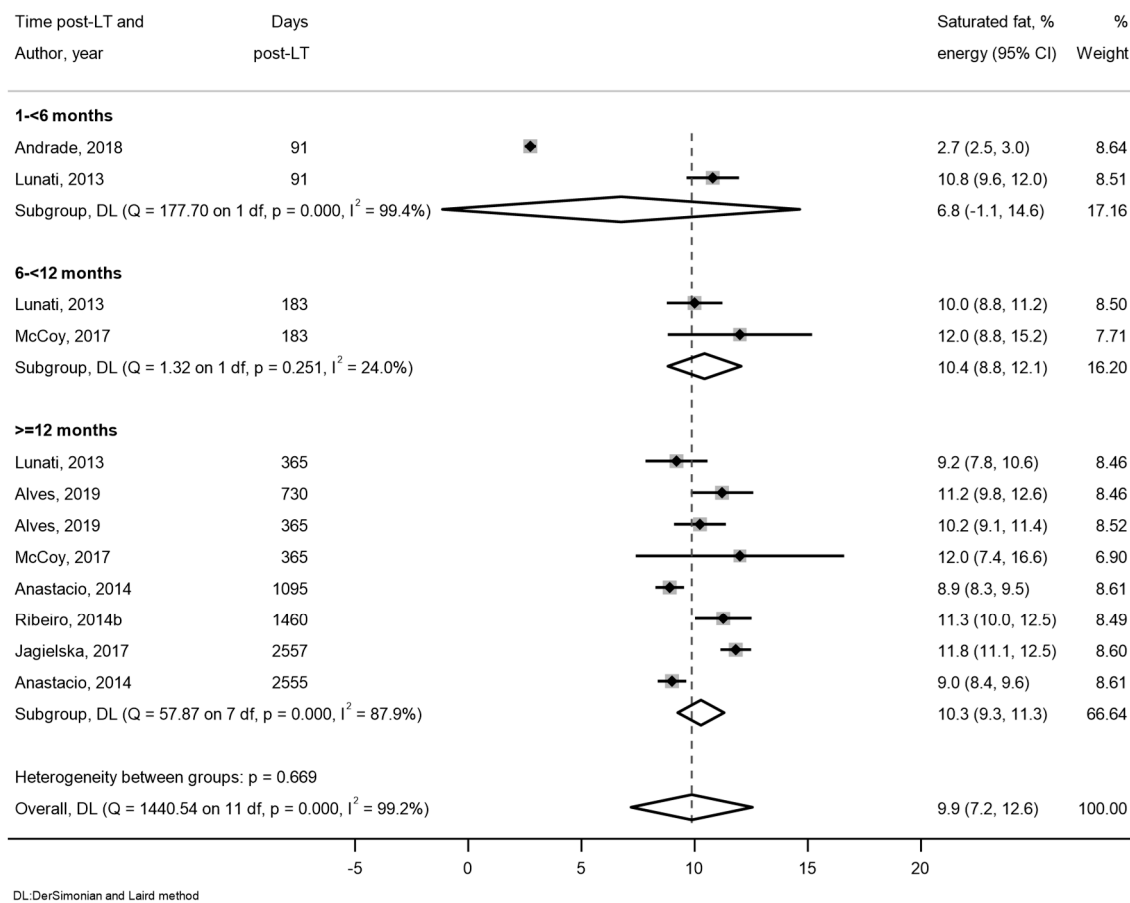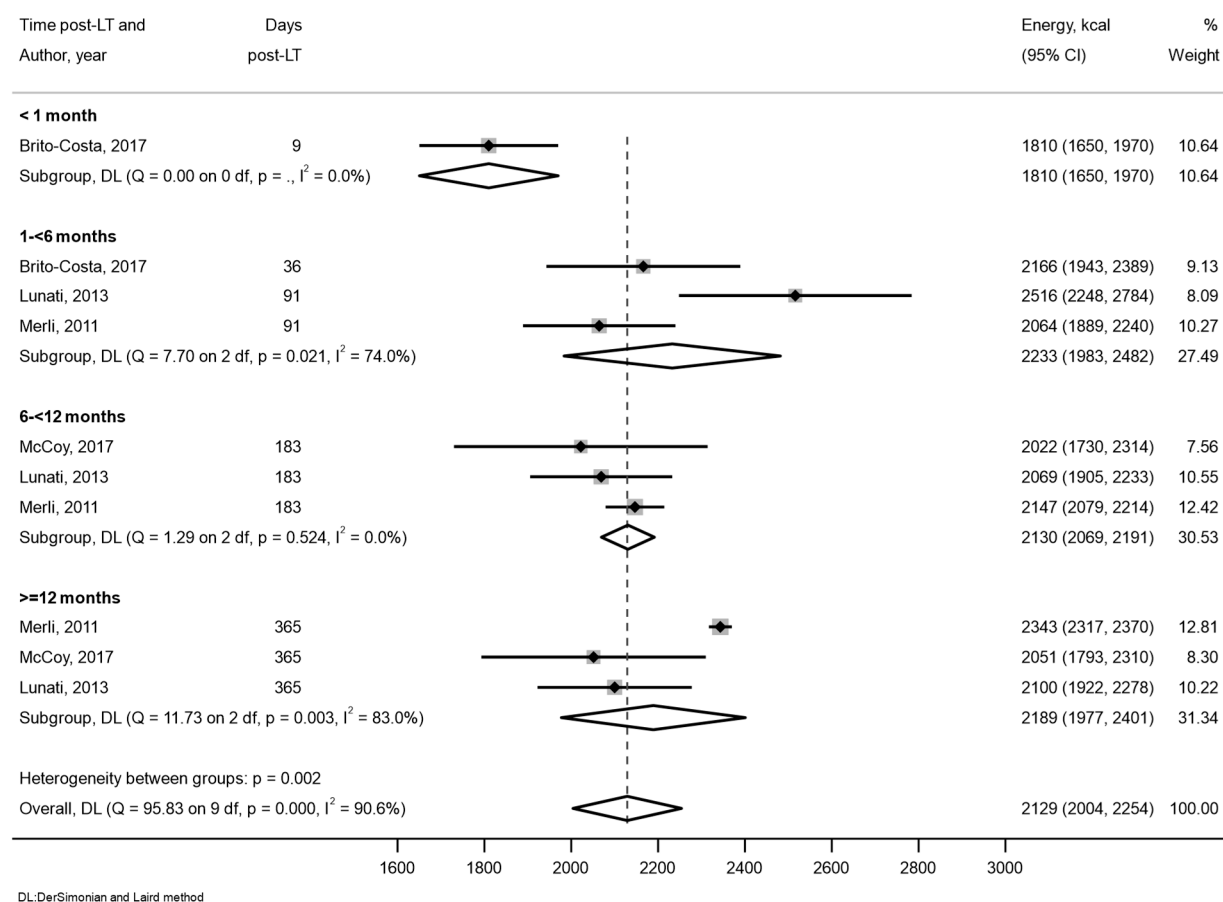
Time post-LT and Author, year	Days post-LT	Carbohydrate, % energy (95% CI)	% Weight
< 1 month			
Brito-Costa, 2017	9	47.1 (44.4, 49.8)	4.30
Subgroup, DL (Q = 0.00 on 0 df, p = ., I^2 = 0.0%)		47.1 (44.4, 49.8)	4.30
1-<6 months			
Brito-Costa, 2017	36	44.2 (41.1, 47.3)	4.05
Farreira, 2013	41	55.4 (49.6, 61.2)	2.53
Krasnoff, 2006	61	48.7 (46.6, 50.8)	4.65
Richardson, 2001	91	48.8 (40.0, 57.6)	1.52
Lunati, 2013	91	49.0 (46.4, 51.6)	4.32
Andrade, 2018	91	50.0 (47.0, 52.9)	4.14
Farreira, 2013	110	54.1 (47.3, 60.9)	2.13
Subgroup, DL (Q = 16.33 on 6 df, p = 0.012, I^2 = 63.3%)		49.3 (47.0, 51.6)	23.35
6-<12 months			
McCoy, 2017	183	41.1 (37.3, 45.0)	3.59
Lunati, 2013	183	49.5 (46.6, 52.4)	4.16
Krasnoff, 2006	183	48.0 (45.3, 50.7)	4.27
De Luis, 2006	183	46.9 (44.4, 49.4)	4.40
Richardson, 2001	183	47.9 (41.7, 54.1)	2.38
Farreira, 2013	193	49.5 (41.4, 57.6)	1.72
Richardson, 2001	274	47.0 (40.2, 53.9)	2.13
Farreira, 2013	287	51.7 (42.3, 61.1)	1.38
da Silva Alves, 2014	319	57.4 (53.4, 61.4)	3.50
Subgroup, DL (Q = 35.83 on 8 df, p = 0.000, I^2 = 77.7%)		48.6 (45.6, 51.6)	27.52
>=12 months			
Krasnoff, 2006	365	49.0 (46.3, 51.7)	4.27
McCoy, 2017	365	45.8 (42.4, 49.3)	3.82
Lunati, 2013	365	50.0 (46.5, 53.5)	3.81
Alves, 2019	365	46.5 (41.6, 51.4)	2.99
Farreira, 2013	379	48.9 (41.2, 56.6)	1.83
Alves, 2019	730	48.3 (43.8, 52.7)	3.25
Rodrigues, 2019	791	51.1 (38.7, 63.5)	0.90
Anastacio, 2014	1095	53.3 (51.6, 55.0)	4.84
Ribeiro, 2014b	1460	52.9 (51.0, 54.9)	4.70
Ribeiro, 2014a	2373	53.8 (52.0, 55.6)	4.78
Anastacio, 2014	2555	51.3 (49.6, 53.0)	4.83
Jagielska, 2017	2557	47.1 (45.3, 48.9)	4.80
Subgroup, DL (Q = 54.82 on 11 df, p = 0.000, I^2 = 79.9%)		50.1 (48.3, 51.9)	44.82
Heterogeneity between groups: p = 0.316			
Overall, DL (Q = 129.19 on 28 df, p = 0.000, I^2 = 78.3%)		49.4 (48.1, 50.7)	100.00

(x-axis: 30 35 40 45 50 55 60 65)
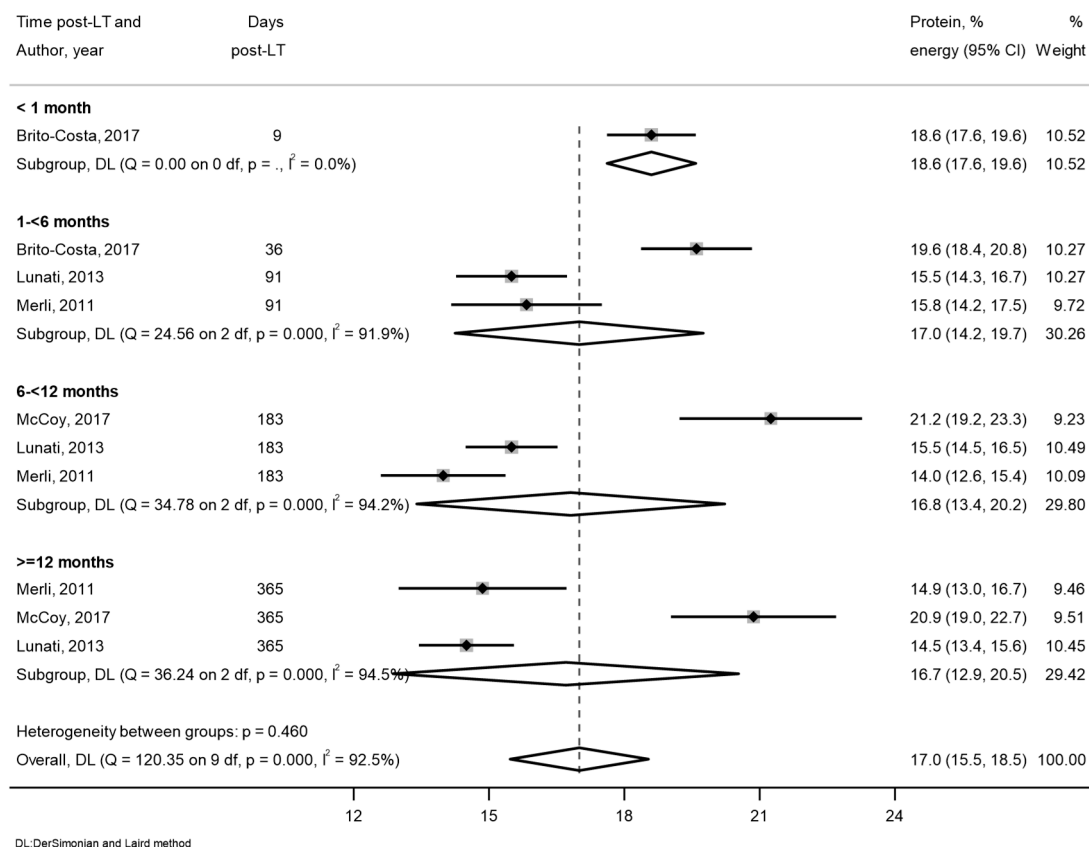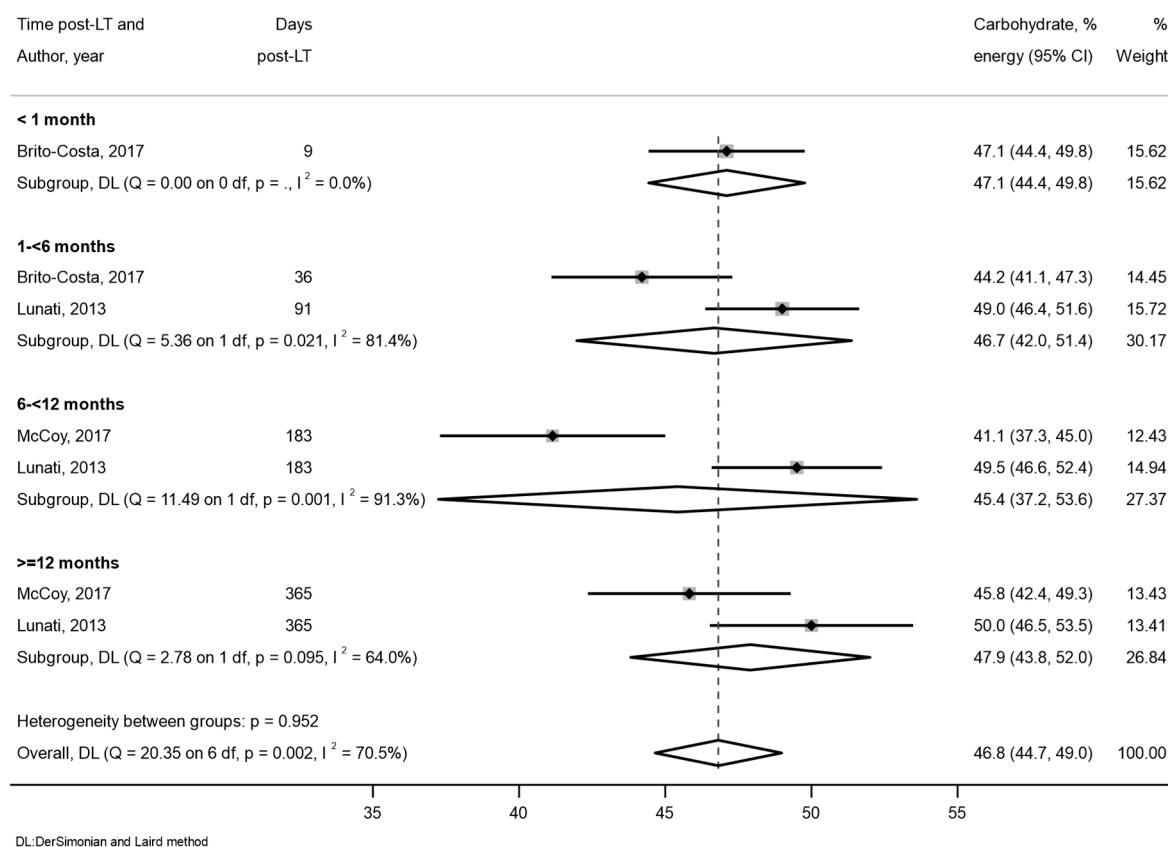
DL:DerSimonian and Laird method

Figure S2. Mean daily carbohydrate intake (percent energy) with 95% confidence intervals from included studies categorised by time post-transplant.
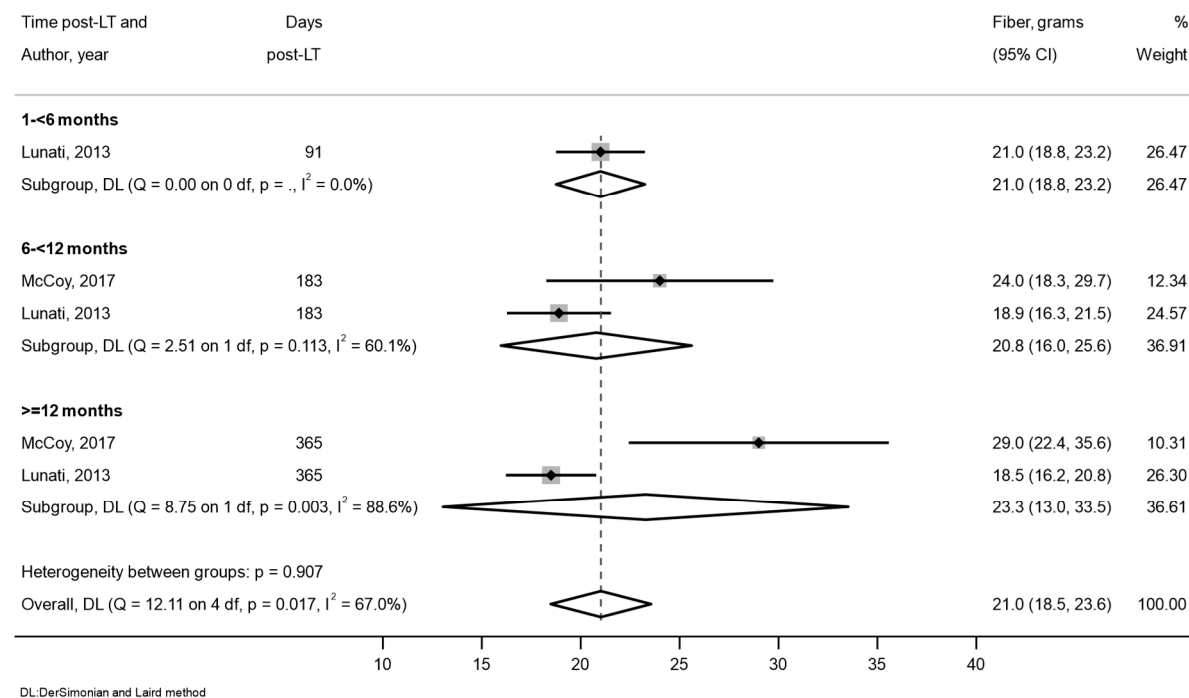
Time post-LT and Author, year	Days post-LT	Fiber, grams (95% CI)	% Weight
1-<6 months			
Lunati, 2013	91	21.0 (18.8, 23.2)	9.37
Andrade, 2018	91	20.6 (16.5, 24.7)	6.14
Subgroup, DL (Q = 0.03 on 1 df, p = 0.864, I^2 = 0.0%)		20.9 (18.9, 22.9)	15.50
6-<12 months			
McCoy, 2017	183	24.0 (18.3, 29.7)	4.19
Lunati, 2013	183	18.9 (16.3, 21.5)	8.64
da Silva Alves, 2014	319	22.9 (16.1, 29.6)	3.37
Subgroup, DL (Q = 3.23 on 2 df, p = 0.199, I^2 = 38.0%)		21.0 (17.5, 24.4)	16.20
>=12 months			
McCoy, 2017	365	29.0 (22.4, 35.6)	3.48
Lunati, 2013	365	18.5 (16.2, 20.8)	9.30
Alves, 2019	365	23.9 (18.4, 29.3)	4.46
Alves, 2019	730	22.6 (17.8, 27.5)	5.19
Anastacio, 2014	1095	16.4 (14.6, 18.2)	10.27
Ribeiro, 2014b	1460	24.8 (20.2, 29.4)	5.44
Ribeiro, 2014a	2373	17.3 (15.2, 19.4)	9.55
Anastacio, 2014	2555	17.5 (15.7, 19.3)	10.27
Jagielska, 2017	2557	17.4 (15.7, 19.1)	10.33
Subgroup, DL (Q = 31.60 on 8 df, p = 0.000, I^2 = 74.7%)		19.4 (17.6, 21.2)	68.29
Heterogeneity between groups: p = 0.501			
Overall, DL (Q = 43.92 on 13 df, p = 0.000, I^2 = 70.4%)		19.9 (18.4, 21.3)	100.00

DL:DerSimonian and Laird method

Figure S3. Mean daily fiber intake (grams) with 95% confidence intervals from included studies categorised by time post-transplant.

Time post-LT and Author, year	Days post-LT	Fat, % energy (95% CI)	% Weight
< 1 month			
Brito-Costa, 2017	9	34.3 (32.0, 36.6)	4.55
Subgroup, DL (Q = 0.00 on 0 df, p = ., I^2 = 0.0%)		34.3 (32.0, 36.6)	4.55
1-<6 months			
Richardson, 2001	91	40.5 (33.1, 47.9)	1.79
Farreira, 2013	110	27.6 (21.1, 34.1)	2.09
Krasnoff, 2006	61	34.8 (33.1, 36.5)	4.89
Andrade, 2018	91	27.8 (25.7, 30.0)	4.64
Brito-Costa, 2017	36	36.2 (33.5, 38.9)	4.27
Farreira, 2013	41	28.3 (23.2, 33.4)	2.77
Lunati, 2013	91	35.5 (32.7, 38.3)	4.17
Subgroup, DL (Q = 44.65 on 6 df, p = 0.000, I^2 = 86.6%)		32.9 (29.6, 36.2)	24.62
6-<12 months			
Krasnoff, 2006	183	35.3 (32.6, 38.0)	4.28
Farreira, 2013	287	31.1 (22.5, 39.7)	1.45
Richardson, 2001	183	40.7 (35.3, 46.0)	2.63
Lunati, 2013	183	35.0 (32.4, 37.6)	4.34
McCoy, 2017	183	29.0 (18.8, 39.2)	1.11
da Silva Alves, 2014	319	29.9 (27.7, 32.1)	4.61
De Luis, 2006	183	36.0 (33.8, 38.2)	4.61
Richardson, 2001	274	41.1 (35.5, 46.6)	2.52
Farreira, 2013	193	30.7 (23.7, 37.7)	1.91
Subgroup, DL (Q = 32.52 on 8 df, p = 0.000, I^2 = 75.4%)		34.7 (32.1, 37.3)	27.47
>=12 months			
Lunati, 2013	365	35.5 (32.3, 38.7)	3.91
Krasnoff, 2006	365	34.5 (32.3, 36.7)	4.61
Ribeiro, 2014a	2373	29.1 (27.5, 30.7)	4.98
Rodrigues, 2019	791	37.4 (28.5, 46.3)	1.37
Alves, 2019	730	36.2 (31.2, 41.3)	2.78
Alves, 2019	365	36.9 (33.2, 40.6)	3.60
McCoy, 2017	365	31.0 (20.5, 41.5)	1.06
Anastacio, 2014	1095	30.8 (29.4, 32.2)	5.09
Ribeiro, 2014b	1460	35.1 (32.5, 37.8)	4.32
Farreira, 2013	379	32.7 (25.1, 40.3)	1.72
Jagielska, 2017	2557	34.4 (32.7, 36.1)	4.90
Anastacio, 2014	2555	32.7 (31.2, 34.2)	5.03
Subgroup, DL (Q = 47.80 on 11 df, p = 0.000, I^2 = 77.0%)		33.5 (31.9, 35.1)	43.36
Heterogeneity between groups: p = 0.787			
Overall, DL (Q = 133.17 on 28 df, p = 0.000, I^2 = 79.0%)		33.8 (32.6, 35.0)	100.00

15   20   25   30   35   40   45   50

DL:DerSimonian and Laird method

Figure S4. Mean daily total fat intake (percent energy) with 95% confidence intervals from included studies categorised by time post-transplant.

4

Time post-LT and Author, year	Days post-LT		Saturated fat, % energy (95% CI)	% Weight
1-<6 months				
Andrade, 2018	91		2.7 (2.5, 3.0)	8.64
Lunati, 2013	91		10.8 (9.6, 12.0)	8.51
Subgroup, DL (Q = 177.70 on 1 df, p = 0.000, I² = 99.4%)			6.8 (-1.1, 14.6)	17.16
6-<12 months				
Lunati, 2013	183		10.0 (8.8, 11.2)	8.50
McCoy, 2017	183		12.0 (8.8, 15.2)	7.71
Subgroup, DL (Q = 1.32 on 1 df, p = 0.251, I² = 24.0%)			10.4 (8.8, 12.1)	16.20
>=12 months				
Lunati, 2013	365		9.2 (7.8, 10.6)	8.46
Alves, 2019	730		11.2 (9.8, 12.6)	8.46
Alves, 2019	365		10.2 (9.1, 11.4)	8.52
McCoy, 2017	365		12.0 (7.4, 16.6)	6.90
Anastacio, 2014	1095		8.9 (8.3, 9.5)	8.61
Ribeiro, 2014b	1460		11.3 (10.0, 12.5)	8.49
Jagielska, 2017	2557		11.8 (11.1, 12.5)	8.60
Anastacio, 2014	2555		9.0 (8.4, 9.6)	8.61
Subgroup, DL (Q = 57.87 on 7 df, p = 0.000, I² = 87.9%)			10.3 (9.3, 11.3)	66.64
Heterogeneity between groups: p = 0.669				
Overall, DL (Q = 1440.54 on 11 df, p = 0.000, I² = 99.2%)			9.9 (7.2, 12.6)	100.00

DL:DerSimonian and Laird method

Figure S5. Mean daily saturated fat intake (percent energy) with 95% confidence intervals from included studies categorised by time post-transplant.

Figure S6. Mean daily energy intake (kcal/day) with 95% confidence intervals from included studies with low risk of bias categorised by time post-transplant.

Figure S7. Mean daily protein intake (percent energy) with 95% confidence intervals from with low risk of bias categorised by time post-transplant.

Time post-LT and Author, year	Days post-LT		Carbohydrate, % energy (95% CI)	% Weight
< 1 month				
Brito-Costa, 2017	9		47.1 (44.4, 49.8)	15.62
Subgroup, DL (Q = 0.00 on 0 df, p = ., I^2 = 0.0%)			47.1 (44.4, 49.8)	15.62
1-<6 months				
Brito-Costa, 2017	36		44.2 (41.1, 47.3)	14.45
Lunati, 2013	91		49.0 (46.4, 51.6)	15.72
Subgroup, DL (Q = 5.36 on 1 df, p = 0.021, I^2 = 81.4%)			46.7 (42.0, 51.4)	30.17
6-<12 months				
McCoy, 2017	183		41.1 (37.3, 45.0)	12.43
Lunati, 2013	183		49.5 (46.6, 52.4)	14.94
Subgroup, DL (Q = 11.49 on 1 df, p = 0.001, I^2 = 91.3%)			45.4 (37.2, 53.6)	27.37
>=12 months				
McCoy, 2017	365		45.8 (42.4, 49.3)	13.43
Lunati, 2013	365		50.0 (46.5, 53.5)	13.41
Subgroup, DL (Q = 2.78 on 1 df, p = 0.095, I^2 = 64.0%)			47.9 (43.8, 52.0)	26.84
Heterogeneity between groups: p = 0.952				
Overall, DL (Q = 20.35 on 6 df, p = 0.002, I^2 = 70.5%)			46.8 (44.7, 49.0)	100.00

35   40   45   50   55

DL:DerSimonian and Laird method

Figure S8. Mean daily carbohydrate intake (percent energy) with 95% confidence intervals from with low risk of bias categorised by time post-transplant.

Time post-LT and Author, year	Days post-LT		Fiber, grams (95% CI)	% Weight
1-<6 months				
Lunati, 2013	91		21.0 (18.8, 23.2)	26.47
Subgroup, DL (Q = 0.00 on 0 df, p = ., I^2 = 0.0%)			21.0 (18.8, 23.2)	26.47
6-<12 months				
McCoy, 2017	183		24.0 (18.3, 29.7)	12.34
Lunati, 2013	183		18.9 (16.3, 21.5)	24.57
Subgroup, DL (Q = 2.51 on 1 df, p = 0.113, I^2 = 60.1%)			20.8 (16.0, 25.6)	36.91
>=12 months				
McCoy, 2017	365		29.0 (22.4, 35.6)	10.31
Lunati, 2013	365		18.5 (16.2, 20.8)	26.30
Subgroup, DL (Q = 8.75 on 1 df, p = 0.003, I^2 = 88.6%)			23.3 (13.0, 33.5)	36.61
Heterogeneity between groups: p = 0.907				
Overall, DL (Q = 12.11 on 4 df, p = 0.017, I^2 = 67.0%)			21.0 (18.5, 23.6)	100.00

10   15   20   25   30   35   40

DL:DerSimonian and Laird method

Figure S9. Mean daily fiber intake (grams) with 95% confidence intervals from with low risk of bias categorised by time post-transplant.

Time post-LT and Author, year	Days post-LT	Fat, % energy (95% CI)	% Weight
< 1 month			
Brito-Costa, 2017	9	34.3 (32.0, 36.6)	26.83
Subgroup, DL (Q = 0.00 on 0 df, p = ., I^2 = 0.0%)		34.3 (32.0, 36.6)	26.83
1-<6 months			
Brito-Costa, 2017	36	36.2 (33.5, 38.9)	19.12
Lunati, 2013	91	35.5 (32.7, 38.3)	17.30
Subgroup, DL (Q = 0.12 on 1 df, p = 0.727, I^2 = 0.0%)		35.9 (33.9, 37.8)	36.42
6-<12 months			
McCoy, 2017	183	29.0 (18.8, 39.2)	1.34
Lunati, 2013	183	35.0 (32.4, 37.6)	20.73
Subgroup, DL (Q = 1.25 on 1 df, p = 0.264, I^2 = 19.8%)		34.1 (29.9, 38.3)	22.07
>=12 months			
McCoy, 2017	365	31.0 (20.5, 41.5)	1.27
Lunati, 2013	365	35.5 (32.3, 38.7)	13.41
Subgroup, DL (Q = 0.64 on 1 df, p = 0.423, I^2 = 0.0%)		35.1 (32.0, 38.2)	14.68
Heterogeneity between groups: p = 0.735			
Overall, DL (Q = 3.20 on 6 df, p = 0.783, I^2 = 0.0%)		35.1 (33.9, 36.2)	100.00

DL:DerSimonian and Laird method

Figure S10. Mean daily fat intake (percent energy) with 95% confidence intervals from with low risk of bias categorised by time post-transplant.

Time post-LT and Author, year	Days post-LT		Saturated fat, % energy (95% CI)	% Weight
1-<6 months				
Lunati, 2013	91		10.8 (9.6, 12.0)	33.42
Subgroup, DL (Q = 0.00 on 0 df, p = ., I^2 = 0.0%)			10.8 (9.6, 12.0)	33.42
6-<12 months				
McCoy, 2017	183		12.0 (8.8, 15.2)	6.21
Lunati, 2013	183		10.0 (8.8, 11.2)	30.85
Subgroup, DL (Q = 1.32 on 1 df, p = 0.251, I^2 = 24.0%)			10.4 (8.8, 12.1)	37.07
>=12 months				
McCoy, 2017	365		12.0 (7.4, 16.6)	3.08
Lunati, 2013	365		9.2 (7.8, 10.6)	26.43
Subgroup, DL (Q = 1.31 on 1 df, p = 0.253, I^2 = 23.5%)			9.7 (7.6, 11.8)	29.52
Heterogeneity between groups: p = 0.666				
Overall, DL (Q = 4.99 on 4 df, p = 0.289, I^2 = 19.8%)			10.2 (9.4, 11.1)	100.00

DL:DerSimonian and Laird method

Figure S11. Mean daily saturated fat intake (percent energy) with 95% confidence intervals from with low risk of bias categorised by time post-transplant.

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Supporting information

Supplementary Tables

Table S1. Search terms and example of search using Embase

Population		Outcome	
Text words	**MESH terms**	**Text words**	**MESH terms**
"Liver transplant*"	Liver graft/	Diet*	diet/
"Hepatic transplant*"	Liver transplantation/	nutrition*	nutrition/
"Liver graft*"		food	physical activity/
		beverage*	exercise/
		drink*	lifestyle/
		intake	qualitative research/
		feeding	interview/
		eat*	
		meal*	
		lifestyle*	
		exercis*	
		"physical activit*"	
		mobil*	
		ambulat*	
		"physical exertion"	
		sport*	
		"bodily movement"	
		"motor activit*"	
		"physical effort"	
		"Lived experience*"	
		Qualitative	

Example of search using Embase

1. "liver transplant*".ti,ab.
2. "hepatic transplant*".ti,ab.
3. "liver graft*".ti,ab.
4. exp liver graft/ (Subject heading term)
5. 1 or 2 or 3 or 4
6. Diet*.ti,ab.
7. nutrition*.ti,ab.
8. food.ti,ab.
9. beverage*.ti,ab.
10. drink*.ti,ab.
11. intake.ti,ab.
12. feed*.ti,ab.
13. eat*.ti,ab.
14. meal*.ti,ab.
15. lifestyle*.ti,ab.
16. exercis*.ti,ab.
17. "physical activit*".ti,ab.
18. mobil*.ti,ab.
19. ambulat*.ti,ab.
20. "physical exertion".ti,ab.
21. "bodily movement".ti,ab.
22. "motor activit*".ti,ab.
23. "physical effort".ti,ab.
24. "lived experience".ti,ab.
25. qualitative.ti,ab.
26. exp diet/
27. exp nutrition/
28. exp physical activity/

29. exp exercise/
30. exp lifestyle/
31. exp qualitative research/
32. exp interview/
33. sport*.ti,ab.
34. 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33
35. 5 and 34

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Supporting information

Table S2. Findings from four studies reporting food groups*

Author, year	Bakshi and Singh., 2018	McCoy et al., 2017		Ribeiro et al., 2014	Anastacio et al., 2013
	Mean (SD)	Median (IQR)		Median (range)	Median (IQR)
Time post-transplant	12 days	6 months	12 months	Mean (SD): 4 (3) years	Median (range); 4 years (13 months – 14 years)
Cereals, bread, etc. (g)/ Cereal grains and products (g)/ Cereals and cereal products (g)/ Breads, cereals, tubers (g)	182.2 (80.9)	154 (84-200)	200 (150-285)	390 (89-1680)	379 (255-550)
Cereal-based products and dishes (g)		68 (42-136)	122 (55-195)		
Wholegrain cereals (g)				0 (0-190)	
Vegetables (g)/ Other vegetables (g)	88.4 (101.6)	199 (89-319)	234 (134-344)	140 (0-600)	104 (65-200)
Leafy vegetables (g)/ Greenery (g)	1.1 (8.2)			110 (0-521)	
Roots and tubers (g)	4.8 (15.8)				
Fruit (g)	10.8 (42.5)	185 (58-303)	184 (49-333)	123 (0-717)	123 (45-248)
Milk (mL)				150 (0-720)	125 (0-200)
Cheese (g)				0 (0-15)	10 (0-15)
Yogurt (g)/ (ml)				0 (0-150)	0 (0-0)
Milk and milk products (g/ml)/ Dairy products and dishes (g)	605.4 (224.4)	264 (153-642)	418 (213-721)	150 (0-720)	
Egg products and dishes (g)		0 (0-31)	0 (0-11)		
Beans (g)/ Pulses and legumes (g)	48.3 (63.4)				120 (60-200)
Meat, poultry, etc. (g)	168.3 (177.6)	154 (96-197)	128 (107-196)	127 (0-500)	120 (91-185)
Fish and seafood products and dishes (g)		21 (0-29)	21 (2-48)		
Sweet beverages (mL)[28]/ Sugar sweetened beverages (g)				200 (0-2000)	154 (0-385)
Sugar and sweets (g)	6 (4.6)			0 (0-500)	20 (0-30)
Fat and oil (g)	9.3 (10.9)	10 (1-17)	10 (5-19)		19 (8-28)

*Studies reported in order of time post-transplant. IQR: interquartile range; SD: standard deviation.

Table S3: Findings from nine studies comparing nutritional intake at two or more time points after liver transplant, with different anti-rejection drugs and between sexes.

Correlate	Author	Measure	Statistical analysis method reported	Energy	Protein	Carbohydrate	Fiber	Fat	Sat fat
Time: 2.4 days vs. 8.1 days	Ribeiro et al., 2020	Median [IQR]	Kruskal-Wallis test and Dunn post test*	↑594.9 [398.9-989.7] vs 1251.8 [1029.2-1779.1] kcal, p<0.05	↑27.1 [13.3-47.7] vs. 63.4 [46.3-93.8] grams, p<0.05 18.6 [14.3–19.9] vs. 18.4 (15.6–23.9) percent energy, p>0.05				
Time: Day 9 vs. Day 12	Bakshi et al., 2018	Mean±SD	ANOVA followed by post hoc test	↑Post-hoc: 1285 ± 594, vs. 1485 ± 732 kcal, p=0.019	↑Post-hoc: 63.5 ± 31.7, vs. 73.6 ± 36.1 grams, p=0.014				
Time: Day 9 vs. Day 35	Brito costa et al., 2016 and Brito costa et al., 2017	Mean±SD	Friedman test, multiple comparisons	↑1810.0±455.1 vs. 2166±635.4 kcal, p<0.05	18.6±2.8 vs. 19.6±3.5 percent energy, p>0.05.	↓47.1±7.6 vs. 44.2±8.8 percent energy, p<0.05		34.3±6.5 vs. 36.2±7.7 percent energy, p>0.05	
Time: 41 days 110 days 182 days 287 days 379 days	Farreira et al., 2013	Mean±SD	Repeated-measures analyses of variance asphericity correction, followed by paired t tests with Bonferroni correction*	No statistically significant differences reported**	No statistically significant differences reported**	Post-hoc: ↓55.4 ± 6.0 percent energy at 110 days vs. 51.7 ± 9.7 percent energy at 287 days, p<0.01 ↓55.4 ± 6.0 percent energy at 110 days vs. 48.9 ± 7.9 percent energy at 379 days, p<0.01		No statistically significant differences reported**	
Time: 6 and 12 months	McCoy et al., 2017	Mean±SD	ANOVA followed by post-hoc Tukey's test*	9.444±2.535 at pre-transplant, 8.460±1.917 at 6 months post-transplant, and 8.583±1.645 kilojoules at 12 months, p=0.415.	1.7±0.5 at pre-transplant, 1.6±0.4 at 6 months post-transplant, and 1.6±0.5 grams/kilogram at 12 months post-transplant, p=0.590.	Post-hoc: ↑208±49 grams at 6 months post-transplant vs.235±36 at 12 months post-transplant, p<0.05	26±11 at pre-transplant, 24±9 at 6 months post-transplant, and 29±10 grams at 12 months post-transplant, p=0.745.	31±9 at pre-transplant, 29±16 at 6 months post-transplant, 31±16 percent energy at 12 months post-transplant, p=0.511.	32±15 at pre-transplant, 23±23 at 6 months post-transplant, 27±28 grams at 12 months post-transplant, p=0.558.
Time: 3, 6 and 12 months	Merli et al., 2011	Median (range)	ANOVA followed by	29 (23-41) at pre-transplant, 31 (24-41) at 3 months post-	0.9 (0.6-4.4) at-pre-transplant, 1.2 (0.7-1.9) at 3				

			Bonferroni test*	transplant, 32 (29-37) at 6 months post-transplant, and 33 (27-36) kcal/kilogram at 12 months post-transplant, p=0.0006. No statistically significant differences reported between post-transplant time points**	months post-transplant, 1.1 (0.7-1.5) at 6 months post-transplant, and 1.2 (0.7-1.6) g/Kg at 12 months post-transplant, p=0.01. No statistically significant differences reported between post-transplant time points**				
Time: 3, 6 and 9 months	Richardson et al., 2001	Mean±SEM	Repeated-measures analysis of variance and for pairwise comparisons paired t tests*	No statistically significant differences between post-transplant time-points reported**	No statistically significant differences between post-transplant time-points reported**	No statistically significant differences between post-transplant time-points reported**		No statistically significant differences between post-transplant time-points reported**	
Time: 3 years vs. 7 years	Anastacio et al., 2014	Mean±SD	Paired t-test	↑1920.9±633.1 vs. 2016.7±666.1 kcal, p<0.01.	↓14.8±4.4 vs. 14.5±3.5 percent energy, p<0.01.	53.3±6.9 vs. 51.3±7.0 percent energy, p=0.46.	↑16.4±7.2 vs. 17.5±7.2 grams, p<0.01.	30.8±5.6 vs. 32.7±6.1 percent energy, p=0.9.	8.9 ± 2.6 vs. 9.0 ± 2.6 percent energy, p=0.47.
Immunosuppression: Cyclosporine vs. Tacrolimus	Brito costa et al., 2016	Mean±SD	Not reported	2083.8±637.9 vs. 2049.3±895.1kcal, p=0.756	17.8±5.1 vs. 18.8±5.6 percent energy, p=0.465	50.4±9.5 vs. 50.3±10 percent energy, p=0.808		31.8±9.2 vs.30.9±7.2 percent energy, p=0.834	
Sex: Female vs. Male	Jagielska et al., 2017	Proportion	Not reported	100.0% vs. 93.6% consuming <estimated requirements, p=0.3675	25% vs. 6.5% consuming <15% energy from protein, p=0.0887	25% vs. 74.2% consuming <50% energy from carbohydrate, p=0.0031	8.3% vs. 9.7% consuming >25g fiber, p=0.8917 0% vs. 6.5% consuming >30g fiber, p=0.3675	41.7% vs. 9.7% consuming <30% energy from fat, p=0.0156	41.7% vs. 16.1% consuming <10% energy from saturated fat, p=0.0002

Significant findings in gray; * including pre- and post-transplant measures; ** no p values or confidence intervals reported; ↑ Intake significantly increased as time progressed post-transplant; ↓ Intake significantly decreased as time progressed post-transplant; blank cells show variable not investigated. IQR: interquartile range; SD: standard deviation.

Table S4. Meta-regression sensitivity analysis including studies with low risk of bias to investigate differences in nutrient intake for study level variables* (n=10).

	Coefficient	95% CI		p	I^2
Average age					
Energy (kcal)	102.5	-141.6	346.6	0.361	85.63
Protein (% energy)	-2.5	-6.0	0.9	0.129	91.44
Sex					
Energy (kcal)	-19.7	-44.4	5.0	0.102	87.13
Protein (% energy)	0.4	0.2	0.7	0.004	76.17
Year of publication					
Energy (kcal)	-35.1	-83.0	12.7	0.129	84.69
Protein (% energy)	0.9	0.6	1.2	<0.001	59.83
Continent – Europe vs. other					
Energy (kcal)	108.6	-279.3	496.4	0.537	91.04
Protein (% energy)	-5.0	-8.7	-1.3	0.014	89.65
Dietary assessment method –					
food diary vs. other					
Energy (kcal)	68.2	-106.9	243.4	0.395	86.41
Protein (% energy)	-0.5	-3.1	2.2	0.696	92.32

* Meta-regression was not performed for different time periods post-transplant or etiology of liver disease due to the limited number of observations for categories (n studies in total <10).

Table S5. Meta-regression sensitivity analysis comparing converted with non-converted data*

Variable	No. observations	Coefficient	95% CI		p	I^2
Energy (kcal)	35	-18.8	-241.1	203.5	0.864	88.95
Protein (% energy)	33	0.3	-1.4	2.1	0.692	88.60
Carbohydrate (% energy)	29	-1.3	-4.3	1.6	0.365	78.87
Fat (% energy)	29	3.4	0.6	6.2	0.018	77.76
Saturated fat (% energy)	12	-0.7	-4.3	2.9	0.679	98.96
Fiber (grams)	14	3.9	-0.2	8.1	0.058	95.74

* Conversion means, for example, a statistical conversion from medians + interquartile range to means + standard deviation.