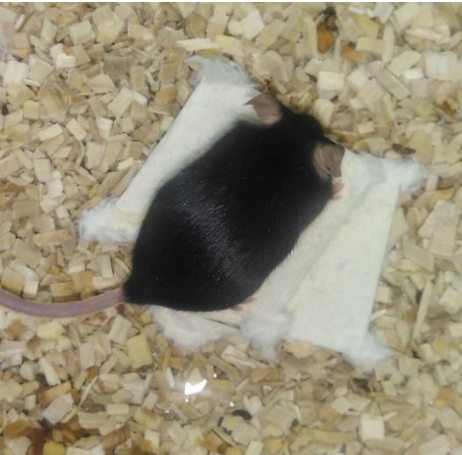


Nestlets



0 points



1 point



2 points



3 points



4 points



5 points



6 points



8 points



10 points

-
- 0 material untouched
 - 1 material transported but not torn
 - 2 up to ¼ material torn, no nest
 - 3 up to ½ material torn, no nest
 - 4 up to ¾ material torn, no nest
 - 5 material torn completely, no nest
 - 6 at least ¾ torn, started to build nest
 - 8 nest recognizable but walls not higher than mouse
 - 10 walls of nest higher than mouse or completely closed
-

scores 2-4 get one extra point if nest recognizable

Cocoons



0 points



1 point



2 points



3 points



4 points



5 points



6 points



8 points



10 points

0	material untouched
1	material transported but not torn
2	up to ¼ material torn, no nest
3	up to ½ material torn, no nest
4	up to ¾ material torn, no nest
5	material torn completely, no nest
6	at least 3/4 torn, started to build nest
8	nest recognizable but walls not higher than mouse
10	walls of nest higher than mouse or completely closed

scores 2-4 get one extra point if nest recognizable

Wooden Wool



0 points



1 point



2 points



3 points



4 points



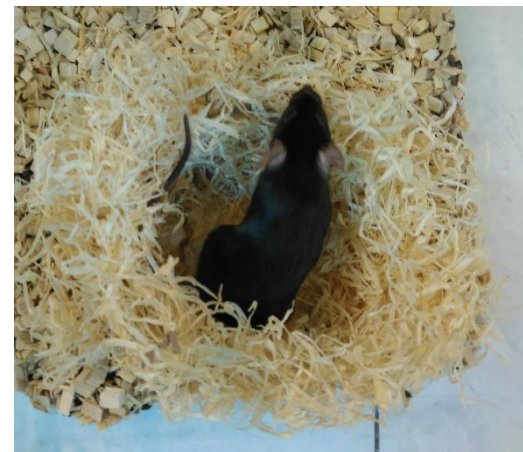
5 points



6 points



8 points



10 points

-
- | | |
|----|--|
| 0 | material untouched |
| 1 | material transported but not torn |
| 2 | up to ¼ material torn, no nest |
| 3 | up to ½ material torn, no nest |
| 4 | up to ¾ material torn, no nest |
| 5 | material torn completely, no nest |
| 6 | at least ¾ torn, started to build nest |
| 8 | nest recognizable but walls not higher than mouse |
| 10 | walls of nest higher than mouse or completely closed |
-

scores 2-4 get one extra point if nest recognizable

Crinklet



0 points



1 point



2 points



3 points



4 points



5 points



6 points



8 points



10 points

0	material untouched
1	material transported but not torn
2	up to ¼ material torn, no nest
3	up to ½ material torn, no nest
4	up to ¾ material torn, no nest
5	material torn completely, no nest
6	at least 3/4 torn, started to build nest
8	nest recognizable but walls not higher than mouse
10	walls of nest higher than mouse or completely closed

scores 2-4 get one extra point if nest recognizable

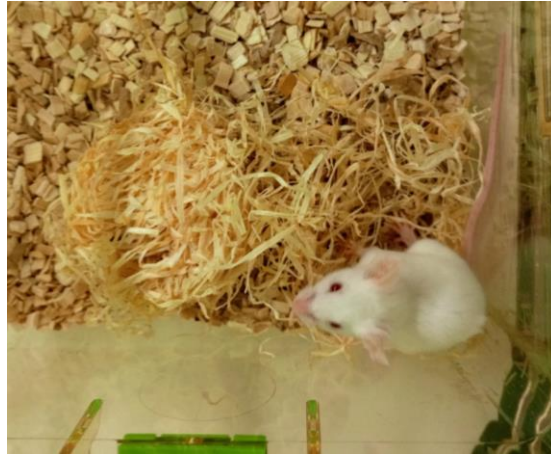
Compact



0 points



1 point



2 points



3 points



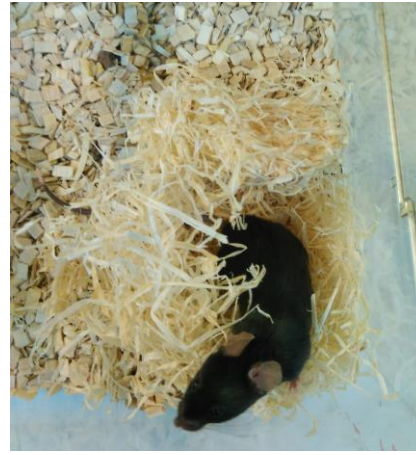
4 points



5 points



6 points



8 points



10 points

0	material untouched
1	material transported but not torn
2	up to 1/4 material torn, no nest
3	up to 1/2 material torn, no nest
4	up to 3/4 material torn, no nest
5	material torn completely, no nest
6	at least 3/4 torn, started to build nest
8	nest recognizable but walls not higher than mouse
10	walls of nest higher than mouse or completely closed

scores 2-4 get one extra point if nest recognizable

Supplement 2: Detailed information on nest building behavior.

Material supporting Figure 3 in the main manuscript:

Nest building behaviour comparison for C57BL/6J mice. Friedmann Test revealed significant global differences ($p < 0.001$). A Wilcoxon Test with correction for multiple testing was used for group comparison.

Nestlet Wooden wool Cocoon Crinklet Compact

Nestlet - $<0.001 <0.001 <0.001 <0.001$

Wooden wool $<0.001 - 1.0 1.0 1.0$

Cocoon $<0.001 1.0 - 1.0 1.0$

Crinklet $<0.001 1.0 1.0 - 1.0$

Compact $<0.001 1.0 1.0 1.0 -$

Nest building behaviour comparison for BALB/c mice. Friedmann Test revealed significant global differences ($p < 0.001$). A Wilcoxon Test with correction for multiple testing was used for group comparison.

Nestlet Wooden wool Cocoon Crinklet Compact

Nestlet - $<0.001 0.010 0.345 0.005$

Wooden wool $<0.001 - 0.905 0.041 1.0$

Cocoon $0.010 0.905 - 1.0 1.0$

Crinklet $0.354 0.041 1.0 - 1.0$

Compact $0.005 1.0 1.0 1.0 -$

Nest building behavior in regard to mouse strain. Data displayed as median (interquartile range). A Mann-Whitney-U-Test was used for group comparison.

Material C57BL/6J BALB/c p-value

Nestlet $9.0 (3.0) 9.0 (3.0) 0.589$

Wooden wool $3.0 (3.0) 3.5 (3.5) 0.195$

Cocoon $3.5 (5.5) 7.0 (7.0) 0.257$

Crinklet $4.5 (6.0) 7.0 (4.5) 0.028$

Compact $4.5 (3.0) 4.5 (6.0) 0.747$

Data supporting Figure 4 in the main manuscript:

Sex specific nest building behavior in C57BL/6J mice. Group comparison with Mann-Whitney-U-Test.

Data displayed as median (interquartile range).

Material female male p-value

Nestlet $9.0 (3.0) 9.0 (3.6) 0.589$

Wooden wool $3.0 (3.8) 3.0 (1.6) 0.195$

Cocoon $3.0 (5.8) 4.0 (5.8) 0.257$

Crinklet $7.0 (6.3) 2.5 (5.5) 0.028$

Compact $5.0 (3.0) 4.3 (4.0) 0.747$

Sex specific nest building behavior in BALB/c mice. Group comparison with Mann-Whitney-U-Test.

Data displayed as median (interquartile range).

Material female male p-value

Nestlet $9.0 (3.0) 9.0 (2.0) 0.320$

Wooden wool $3.5 (3.5) 2.5 (1.5) 0.034$

Cocoon $7.0 (7.0) 2.0 (2.0) 0.003$

Crinklet $7.0 (4.5) 5.5 (2.9) 0.090$

Compact $4.5 (6.0) 3.5 (2.1) 0.029$

Data supporting Figure 5 in the main manuscript:

Housing specific nest building behavior in C57BL/6J mice. Group comparison with Mann-Whitney-U-Test.

Data displayed as median (interquartile range).

Material single pair p-value

Nestlet 7.0 (3.3) 10.0 (1.0) 0.001

Wooden wool 2.8 (1.5) 4.5 (4.0) 0.013

Cocoon 3.0 (5.6) 4.0 (6.8) 0.054

Crinklet 3.0 (3.8) 7.0 (7.0) 0.047

Compact 3.0 (3.1) 5.0 (3.0) 0.039

Housing specific nest building behavior in BALB/c mice. Group comparison with Mann-Whitney-U-Test. Data displayed as median (interquartile range).

Material single pair p-value

Nestlet 9.0 (3.0) 9.0 (3.0) 0.743

Wooden wool 2.5 (2.8) 2.5 (2.5) 0.472

Cocoon 3.0 (4.5) 2.5 (5.0) 0.905

Crinklet 6.0 (2.5) 6.3 (4.9) 0.783

Compact 3.5 (3.5) 4.0 (3.1) 0.265

Data supporting Figure 6 in the main manuscript:

Housing and sex specific nest building behavior in C57BL/6J mice. Data displayed as median (interquartile range): a Kruskal-Wallis-Test for global differences (p-values given in table) was followed by pairwise comparison with a Mann-Whitney-U-Test adjusted for multiple testing. *...p<0.05 vs. single male and pair-housing male; #...p<0.05 vs. single female housing; \$...p<0.05 vs. single male housing.

Material female male p-value

single pair single pair

Nestlet 7.0 (2.5) 10.0 (1.0)* 9.0 (4.5) 9.0 (2.0) 0.007

Wooden wool 2.0 (1.5) 5.3 (4.3) 3.0 (0.5) 3.5 (4.0) 0.067

Cocoon 2.5 (2.0) 7.8 (6.8)# 5.5 (6.5) 4.0 (5.5) 0.046

Crinklet 4.5 (6.0) 8.5 (4.3)\$ 2.5 (2.5) 5.5 (6.5) 0.018

Compact 3.0 (3.5) 5.5 (3.4) 3.0 (3.0) 5.0 (3.5) 0.181

Housing and sex specific nest building behavior in BALB/c mice. Data displayed as median (interquartile range): a Kruskal-Wallis-Test for global differences (p-values given in table) was followed by pairwise comparison with a Mann-Whitney-U-Test adjusted for multiple testing. §...p<0.05 vs. all other housing groups; %...p<0.05 vs. pair-housed male mice.

Material female male p-value

single pair single pair

Nestlet 10.0 (2.5) 8.0 (3.5) 8.5 (3.8) 9.0 (1.0) 0.511

Wooden wool 4.5 (3.8)§ 2.0 (3.5) 2.0 (1.0) 2.5 (1.0) 0.002

Cocoon 5.0 (1.8) 8.5 (8.1)% 2.5 (3.8) 1.5 (3.8) 0.017

Crinklet 7.0 (3.0) 5.8 (5.9) 5.3 (3.6) 6.3 (4.4) 0.064

Compact 5.5 (6.0) 4.0 (5.9) 3.0 (2.3) 3.8 (2.5) 0.080