

What is rat tickling?

- Rat tickling is a handling technique that was developed to study play and positive affect.
- It mimics rat rough-and-tumble play by using a human hand to playfully “wrestle” a rat.
- Tickling rats for just 15 s for 3 days is effective!

Why tickle rats?

- Improves rat positive affect & welfare
- Reduces handling time, stress, fear & anxiety
- More effective than other techniques
- Social enrichment, especially for isolated rats
- Best for younger, juvenile rats!

How to tickle a rat

Bring the home cage to a surface and remove hard enrichment items. Begin with your hand resting in the cage for a few seconds before starting the procedure below.



1. Dorsal Contact

- Use one hand
- Tickle on nape of the neck
- Light/brisk movements



2. Flip

- Place thumb & middle finger under rat's forelegs and 1st finger in front of collar bone
- Flick your wrist to turn
- Hold loosely, but firmly

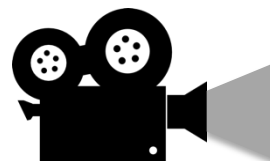


3. Pin

- Hold rat down loosely
- Move fingers quickly & vigorously w/ light pressure
- 2-4 seconds per pin
- 3-5 pins for 15 seconds

WHAT NOT TO DO

- Be too hesitant/slow/gentle
- Be too rough or kink the tail when flipping
- Contact the rump, (aggression is directed here)



For more details see:
Cloutier et al. 2018 JoVE
(www.jove.com/video/57190/tickling-a-technique-for-inducing-positive-affect-when-handling-rats)

Positive Responses

- Approach & follow your hand
- Light nibbling at the fingers
- Relaxed bodies and tails
- 50-kHz vocalizations (use a bat detector)

Negative Responses

- Avoidance & running away
- Defensive postures
- Tense bodies and tails
- 22-kHz vocalizations (use a bat detector)

#1 Play like a rat

- Use one-hand to mimic rat rough-and-tumble play.
- Avoid the rump
- Be quick, light, but assertive over the shoulder area & between the front legs. You must do both the dorsal contact & pin for it to count as rat tickling!



#2 Tickle first, manipulate later

- Tickle for 3 days before any procedures like marking or injections.
- On the day of procedures make sure to tickle rats *before* rather than after. This induces positive emotions and will help minimize negative impacts of the procedure.
- Don't try to tickle after aversive procedures such as having injection, rats may not be in the mood to play.
- Some have reported success tickling rats prior to surgeries.



#3 Tickle often, not long

- The minimum tickling dosage is just 15 seconds per day per rat for 3 days.
- This gives rat a few days to figure out the handling method
- Once rats are used to it, you can tickle them once a week at cage change, before procedures, or even every few weeks



#4 Read your rat

- Try tickling rats for 3 days before deciding its not for them. Use ultrasonic vocalizations & behavior to make that decisions.
- Positive calls occur between 35-75 kHz, negative calls around 22 kHz



#5 Consider your rats & models

- Rat tickling is NOT best for every rat or model.
- Generally do not tickle breeder males or extremely stressed rats. Tickle older adult rats (>3 months) with caution based on their response.
- If your model needs stressed/anxious rats then tickling could rescue the model. In general though, tickling could be a beneficial refinement!

