WALNUT CREEK SUPPLY

THE COMPLETE CARE GUIDE

Fancy Rat

The small mammal that bonds like a dog



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> ***New owner?*** *Go straight to Section 1. It is written so you can set up a safe, correct home and get through the first 48 hours without reading anything else first.*

*Fancy rats are the best-kept secret in the pet world. Not the most expected choice — not the first animal most families think of — but consistently the one that earns a permanent place in the house, the routine, and the heart in a way that surprises even people who were skeptical going in. A rat who has been handled patiently from a young age knows your voice, recognizes your scent, responds to her name, and comes running to the cage door when you walk into the room. She learns tricks in a handful of short sessions. She falls asleep on your shoulder on a Tuesday evening with an ease that catches new owners completely off guard. She grinds her teeth softly in rapid contentment — **bruxing** (the rat equivalent of a cat purring, defined fully in the Training section) — while you scratch behind her ears, her eyes vibrating gently in their sockets from the sheer pleasure of it. These are not the behaviors of a small cage animal who tolerates her keeper. They are the behaviors of an animal genuinely engaged with the world around her.*

Here is the thing you need to know before anything else, and it deserves to be said early: she will be gone in two to three years. Fancy rats live short lives — intense, deeply social, cognitively rich lives — but short ones. The bond that forms in that time is real, and the goodbye arrives faster than most people are prepared for. Knowing this going in does not diminish the experience. It shapes how you approach it: how much daily free-roam time you give her, whether you invest in veterinary care, whether you get a companion so she is never alone. You are here because you want to do this right. That matters enormously to an animal this intelligent.

SECTION 1

Quick Start: Your First 48 Hours

1. **Never bring home one rat alone.** A single rat is a rat in social deprivation. Fancy rats are intensely social animals who require the company of at least one companion of their own species. A lone rat develops stress, anxiety, and immune problems within weeks — not months. Get a same-sex pair at minimum. If you are acquiring from a breeder or shelter, a bonded pair is ideal. Introductions between unfamiliar adults require a proper step-by-step protocol and cannot be rushed.

2. **Build the complete enclosure before the rats arrive.** Tall, multi-level wire cage with bar spacing of one-half inch or less. Minimum interior volume of four cubic feet per rat — for a pair, aim for at least eight cubic feet total. A cage in the 24" × 24" × 36" class is the practical minimum for two adult rats; larger is meaningfully better. **No aquariums or glass enclosures under any circumstances** — see Enclosure Setup for why this matters directly to this species' health.

3. **Verify room temperature is 65–75°F at cage level — not at ceiling height.** Rats cannot tolerate temperatures above 80°F; heat stress is rapid and can be fatal within an hour. Confirm the room stays below 80°F during summer heat waves and does not drop below 60°F in winter. Also check air quality: no cigarette smoke, no scented candles, no air fresheners, no harsh cleaning product fumes in the cage room. These are direct triggers for respiratory disease in rats.

4. **Have the cage fully furnished before they come home.** Substrate at two to three inches depth, hammocks at every level, a hide box at every level, a litter pan in the corner the rats will naturally prefer, a water sipper bottle and a ceramic bowl filled and placed, and a food bowl loaded with lab blocks.

5. **Stock the food station with lab blocks — not a grain mix.** Oxbow Essentials Regal Rat and Supreme Science Selective are the consensus top picks. Do not use hamster food, guinea pig food, rabbit pellets, or generic "small animal" mix. None of these are nutritionally calibrated for rats.

6. **Rat-proof your free-roam space before day one.** Covering electrical cords, blocking gaps under appliances, removing toxic plants, and securing open water vessels all take time to do correctly. Daily free-roam is a welfare requirement, not optional enrichment — have the space ready before the rats arrive.

7. **Place the travel carrier inside the open cage and let them walk out at their own pace.** Do not reach in and pull them out. Let the cage and its contents declare themselves safe on the rats' own terms. They may not leave the carrier for several minutes. That is exactly right.

8. **Leave them completely alone for three to five days.** No handling, no rearranging, no visitors. Sit near the cage, talk quietly, and let them learn your voice as a neutral, non-threatening sound before that voice becomes the voice attached to a hand entering their space. Check water and food quietly once or twice a day. Everything else waits.

9. **Begin gentling on day three or four — let them come to you.** Open the cage door and hold your hand still just inside the entrance with a small treat on your palm. Do not reach toward them. If they approach and sniff, that is progress. If they take the treat from your palm, that is a successful first session. Do not attempt to pick them up until they come to your hand voluntarily.

10. **Find an exotic vet who sees small mammals before you need one.** Confirm they treat rats specifically — not every small-mammal practice has experience with rat medicine. Keep the number somewhere accessible. A rat who sounds slightly off today can be in genuine respiratory distress by tomorrow morning.

First-Time Starter Bundle

What needs to be in the house on day one, and what to look for in each category.

Essentials

- **A tall, wire, multi-level cage** — bar spacing no greater than one-half inch for adult rats. Solid platform floors on each level rather than wire grates, which cause pododermatitis (**bumblefoot**: pressure sores on the footpads that become infected if uncorrected). Avoid cages with large porous plastic trays that permanently absorb ammonia odor. Deep metal or scrub-safe plastic bases are preferable.
- **Multiple hammocks and sleep sacks** — rats sleep in piles and hammocks are among their most consistent environmental preferences. Budget for three to four per pair at minimum; rotate them through the laundry frequently.
- **Hide boxes at every level** — at least one per rat plus extras; enclosed on three or four sides with a single entrance hole. Rats feel secure in an enclosed sleeping space and exposed on an open shelf.
- **Paper-based substrate** — Carefresh Ultra or Natural, Boxo, Fitch, or a similar unscented paper bedding at two to three inches depth on the cage floor. Low dust is critical for respiratory health in this species.
- **A dedicated litter pan** — a corner pan filled with a distinct litter material (compressed wood pellets or a separate paper litter) placed in the corner the rats naturally select as their toilet area. Litter training happens in one to two weeks with almost no effort.
- **A sipper bottle and a ceramic water bowl** — some rats drink only from bottles, others from bowls; providing both ensures hydration regardless of individual preference. Both need daily refreshing.
- **Lab blocks: Oxbow Essentials Regal Rat or Supreme Science Selective** — the nutritional foundation. Have a full bag before the rats come home.
- **A heavy ceramic or stainless-steel food bowl** — plastic bowls absorb odor, scratch permanently, and become impossible to fully sanitize. Ceramic or stainless steel lasts the lifetime of the cage.

> ***Ready to set up?*** *Browse the essentials in our collections: Critter Enclosures and Critter Bedding and Accessories.*

Enrichment

- **A solid-surface running wheel, 12-inch minimum** — solid running surface rather than wire mesh rungs, which trap and injure feet. Silent bearings matter; rats are active overnight and a squeaking wheel at 2 a.m. is a problem for everyone. Not every rat uses a wheel, but providing the option is important.
- **Rope ladders, climbing branches, and cargo nets** — rats climb and explore constantly during waking hours. Vertical complexity is behavioral enrichment, not decoration.
- **Paper and cardboard for shredding and nesting** — plain unbleached cardboard, paper bags, and paper towel tubes are used actively. Rats build nests from anything soft and shred everything else with visible enjoyment.
- **Foraging feeders and puzzle feeders** — a scatter mat, a folded paper square with treats inside, an egg carton with pellets in each cell: anything that makes finding food take longer than two minutes. Foraging is how rats are built to eat.
- **Wood chews and untreated wooden blocks** — rats' incisors grow continuously and must be worn down through gnawing. Safe woods include applewood, willow, and birch.
- **A ventilated travel carrier** — a snug, secure container with a small hide inside. Introduce it to the home cage weeks before any vet visit so the carrier scent is familiar and neutral when the appointment arrives.
- **A dedicated free-roam blanket** — a soft fleece piece used only for lap time and free-roam sessions. Rats are scent-oriented animals and a blanket that carries your scent and theirs together becomes a reliable comfort object quickly.

Enrichment, one click away. *Shop Critter Toys and Accessories.*

SECTION 2

Meet Your Fancy Rat

The domestic fancy rat (*Rattus norvegicus domesticus*) is a selectively bred form of the brown rat — also called the common rat — kept by humans for most of the past two hundred years. "Fancy" is not a marketing term; it comes from the British expression "to fancy" something, meaning to have a liking for it, and it was the word used by the rat-fancying clubs of Victorian and Edwardian England that first standardized domestic rat breeds, colors, and markings as show animals. Wild brown rats (*Rattus norvegicus*) originated in China, spread across Asia and into Europe by the 18th century, and arrived in North America on sailing ships. The first domesticated animals were bred from wild stock caught for rat-baiting and from laboratory colonies; by the late 19th century, domestic rats had crossed from research settings into British homes, and eventually worldwide.

A group of rats is called a **mischief** — and if you have watched a bonded group together for any length of time, the aptness of that word is difficult to argue with.

Trait	Detail
Common name	Fancy rat, domestic rat
Scientific name	*Rattus norvegicus domesticus*
Origin	Selectively bred from the brown rat; European domestication beginning in the 18th–19th century
Adult body length	**9–11 inches**, not including the tail; tail roughly equal to body length
Adult weight	**250–500 grams**; does (females) typically 250–350 g; bucks (males) 350–500 g
Typical lifespan	**2–3 years** with good care; rarely beyond 3; exceptional individuals reach 3.5 years
Activity pattern	Crepuscular and nocturnal — most active at dawn, dusk, and overnight; sleep 12–14 hours a day
Social structure	**Highly social — must be kept in same-sex pairs or groups at all times**
Temperament	Curious, confident, bond deeply with their keepers; trainable with positive reinforcement; comparable to dogs for problem-solving and emotional engagement
Communication	Bruxing (teeth grinding — contentment), boggling (eye vibration — deep contentment), ultrasonic vocalizations inaudible to humans

Why rats are exceptional pets

Rats are one of the most cognitively capable small mammals available as pets, and the comparison to dogs is not exaggeration. Research on rat cognition has documented genuine empathy behaviors — rats work to free trapped companions and share food with hungry cagemates even when no reward is offered for doing so. They recognize individual humans by scent and voice. They solve multi-step problems and remember the solutions weeks later without reinforcement. They show metacognition — an awareness of their own knowledge state — a benchmark previously considered rare outside primates. In a home setting, this translates directly to practical things: a rat typically learns her name within two or three days, comes when called reliably by the end of the first week, and builds an expanding repertoire of trained behaviors as quickly as her owner invests time in working with her. She will also figure out how the cage latch works if you let her watch you open it often enough. Consider yourself warned.

The emotional bond is equally real. Rats form genuine attachments to their keepers — they distinguish their person from strangers, actively seek proximity, and show measurable physiological stress when separated from a bonded human. A rat raised with consistent daily handling does not merely tolerate being picked up; she anticipates it. She recognizes your routine. She

bruxes when you hold her. None of this is projection. It is a well-documented property of a species whose social cognition is shaped by living in complex, cooperative groups and reading the intentions of every individual in them.

The lifespan reality

The average fancy rat lives two to three years. Some individuals reach three and a half. Rats living beyond four years are genuinely exceptional rather than expectable. This is shorter than most people realize before their first pair comes home, and it is worth sitting with honestly.

What it means in practice: the rat who is at her most active and trainable between six months and a year and a half is also a rat whose aging curve begins in her second year — rising risk of mammary tumors in does, respiratory decline driven by Mycoplasma, and the degenerative changes that come with advanced age in a short-lived species. A rat at two years is an elderly animal by the time most family dogs are still adolescents.

The bond that forms is real enough that many rat owners describe the loss of their first rats as harder than losing pets they kept for a decade. Many experienced rat keepers stagger the ages of their groups deliberately — introducing a younger pair while older companions are still alive — so that no rat spends her last months alone, and so the household is never simultaneously empty after a bonded group ages out together. That approach is worth knowing about before you start.

Coat and ear varieties

All of the following are the same species with identical care requirements. Variety selection is entirely aesthetic.

Variety	Distinguishing feature	Notes
Standard	Short, smooth coat; upright ears set on top of the head	The common form; all colors and markings available
Dumbo	Round, larger ears set low on the sides of the head rather than the top	No health concerns associated with ear position; same care in every respect
Rex	Wavy or curly coat and kinked whiskers	Coat may thin slightly with age; young rex rats have especially pronounced curls that soften in adulthood
Hairless (Sphynx)	Little to no coat; smooth pink skin	Requires slightly warmer ambient temperatures; prone to skin dryness and minor abrasions; routine skin inspections important
Tailless (Manx)	Vestigial or fully absent tail	Some lines carry associated spinal abnormalities; source from a reputable breeder; reduced thermoregulation capacity without a tail
Satin	Extra glossy, fine-textured coat that can appear almost wet	Aesthetic only; same care requirements as standard

What surprises new owners

The bruxing and boggling moment. Most new rat owners have never heard of bruxing before they hear their rat doing it — and panic. A contented rat grinds her front teeth in rapid, rhythmic clicks, and in intense moments of relaxation her eyes vibrate in their sockets with a visible shimmy called **boggling** (caused by the jaw muscles pressing rhythmically on the floor of the eye socket during deep bruxing). Both are involuntary signs of happiness. Both look alarming the first time. A rat who bruxes and boggles while being held is telling you clearly that the handling approach is working.

The sleep schedule. Rats sleep twelve to fourteen hours a day, primarily during daylight hours. New owners checking the cage at noon sometimes find a pile of unmoving fur and worry. They are asleep, not unwell. Dusk is when everything changes: the cage noise goes up, the wheel starts turning, the hammocks start swinging.

How quickly litter training happens. Rats are fastidiously clean animals who naturally designate one corner of their enclosure as a toilet area. Placing a litter pan in the corner they have already chosen, filled with a distinct litter material, produces a trained rat in one to two weeks with almost no deliberate effort from the keeper.

The scent marking in bucks. Male rats — **bucks** — scent-mark by depositing small amounts of urine as they move. A buck exploring your arm is marking you as part of his social world. This is not a house-training failure. It diminishes substantially after neutering. Female rats — **does** — mark less and have no comparable body odor, which is one reason many rat keepers prefer does for their first group.

SECTION 3

Enclosure Setup & Layout

Cage size, height, and layout

The minimum enclosure for a pair of fancy rats is a tall, multi-level wire cage with at least eight cubic feet of total interior space — four cubic feet per rat. In practical cage dimensions, a 24" × 24" × 36" (length × depth × height) interior reaches this standard. Larger is meaningfully better: rats are active climbers and explorers who use every inch of a well-furnished cage during their waking hours, and the diminishing returns on a larger cage are far smaller than the returns on a smaller one.

Tall cages are preferable to wide-footprint cages because rats climb enthusiastically and use vertical space heavily. A cage that is 36 to 48 inches tall with three or four platform levels connected by ramps, hammocks, and climbing structures provides behavioral complexity that a large flat floor area cannot replicate. Multi-level cages also allow more efficient use of the keeper's floor space while giving the rats more usable square footage.

Bar spacing must not exceed one-half inch for adult rats. Young rats, smaller adult does, and rex-coated animals with a slightly finer build may need quarter-inch spacing. Test every gap: rats are determined explorers who find openings their bodies should not be able to pass through.

Cage floors and platforms should be solid — not wire mesh. Wire floor panels cause **bumblefoot** (pododermatitis): pressure sores on the footpads that begin as redness, progress to swollen infected nodules, and become serious quickly. If your cage arrived with wire insert floors, cover them with solid platforms, fleece panels, or sealed wood boards before the rats enter.

Why no aquariums or solid-walled enclosures

Rats produce ammonia from urine decomposition. Ammonia is a direct irritant to the respiratory mucosa, and **Mycoplasma pulmonis** — the bacterial pathogen carried subclinically by virtually every pet rat — is triggered into clinical disease by respiratory irritants. Glass aquariums and solid-walled enclosures trap ammonia at harmful concentrations even with conscientious cleaning. Wire cages with open mesh sides allow cross-ventilation that disperses ammonia before it accumulates. This is not a preference or an aesthetic choice. It is the single most structurally important requirement for a species with endemic Mycoplasma. No aquarium is appropriate for a rat regardless of size, lid design, or ventilation attachment added after the fact.

Levels, hammocks, and hide boxes

Arrange platform levels so a rat on any level can access at least one hammock and one enclosed hide without crossing open, exposed space. Hammocks connect levels and serve as preferred sleeping spots; rats pile into them together in ways that would be impossible on a flat shelf. Budget three to four hammocks per pair at minimum and rotate them through the laundry on a weekly cycle — soiled hammocks become concentrated ammonia sources inside the cage.

Hide boxes — enclosed on three or four sides with a single entrance — should be present at every level. Rats feel secure when sleeping in an enclosed space and exposed on an open shelf. A well-furnished cage that has no fully enclosed hides produces chronically higher-stress rats who compensate with defensive behavior during handling.

Litter tray and food station

Rats naturally select one primary toilet corner. Place a corner litter pan filled with a material distinct from the main cage substrate — compressed wood pellet litter, paper pellets, or a separate brand of paper bedding all work well — in the corner the rats have already chosen. The pan should be the first thing cleaned every day; keeping this single highest-ammonia area under control makes an outsized difference in air quality across the whole cage.

Offer lab blocks in a heavy ceramic or stainless bowl, or scattered into the bedding as foraging enrichment. Fresh food is offered in a separate small bowl and removed within two to four hours before it can spoil in the substrate.

SECTION 4

Substrate Guide

Substrate selection for rats is primarily a respiratory management decision. The two properties that matter most are dust level — fine airborne particulate is an independent Mycoplasma trigger — and ammonia absorption, which controls air quality between cleanings.

Substrate	Best use	Ammonia control	Dust level	Notes
Paper-based bedding (Carefresh, Boxo, Fitch)	All rats; primary recommendation for most keepers	Excellent	Very low — choose unscented natural or ultra grade	Preferred substrate; high absorbency, soft underfoot, widely available unscented; avoid dyed or scented varieties which add unnecessary chemical exposure to the air column
Aspen shavings (kiln-dried, small-animal grade)	Adults; acceptable secondary choice	Good	Low to moderate depending on grade	Lower aromatic content than other wood shavings; must be confirmed kiln-dried small-animal grade; bulk or garden-grade aspen may be dustier and is not appropriate
Fleece liners	Experienced keepers with very high-frequency cleaning routines	Poor alone — must be offset bydaily spot-cleaning	Zero	Reusable and economical over time; requires full cage spot-clean every day and full liner wash every two to three days; skipping either compromises ammonia control entirely and makes fleece worse than paper bedding
Wood pellet litter (softwood, kiln-processed)	Litter tray specifically	Excellent	Very low	Not comfortable as a full floor substrate; ideal for the litter pan where ammonia concentration is highest
Cedar shavings	**Never, for any rat**	—	—	Aromatic phenols in cedar are direct Myco triggers via respiratory exposure; no safe use case at any concentration or life stage
Aromatic pine shavings	**Never**	—	—	Same phenol concern as cedar; kiln-dried pine specifically processed for small animals is a distinct product — only use if the bag explicitly states small-animal safe; when in any doubt, use paper bedding
Clay cat litter or clumping litter	**Never**	Poor	Very high	Fine dust is a direct Myco trigger; clumping material can compact in the digestive tract if ingested during grooming; no valid use case in a rat enclosure
Corncob bedding	**Avoid**	Poor	Moderate	Promotes mold growth when wet; can compact if ingested; poor ammonia absorption; no advantage over paper bedding in any category

Substrate	Best use	Ammonia control	Dust level	Notes
Any dusty bedding of any material	**Never**	—	—	Fine airborne particulate is an independent Myco trigger regardless of composition; if a substrate raises visible dust when disturbed, it is not appropriate for rats

The practical recommendation for most rat keepers: unscented paper bedding — Carefresh Natural, Carefresh Ultra, or Boxo — at two to three inches depth on the cage floor, with a separate corner litter pan filled with compressed wood pellet litter. The paper bedding is soft, nearly dust-free, and absorbs ammonia effectively between changes. The dedicated litter pan contains the highest-concentration ammonia source in one removable spot cleaned daily.

SECTION 5

Temperature & Ventilation — The 2 Factors

Of all the variables in rat husbandry, temperature and air quality are the two that most directly govern the Mycoplasma situation — the single leading cause of premature death in pet rats. Getting both factors right does not eliminate Myco entirely (the bacteria is endemic and most rats carry it subclinically for life), but it is the difference between a rat who lives two and a half healthy, active years and one who spends her last eight months on antibiotics.

Factor	Target	How to measure	What goes wrong when it's off
Ambient temperature	**65–75°F**	Digital thermometer positioned at cage level — not at ceiling or standing height; measure where the rats actually are	Below 60°F: immune suppression, increased Myco risk, hypothermia in small young rats; above **80°F**: rapid heat stress onset; above 85°F: potentially fatal within an hour without intervention
Heat stress threshold	**80°F is the line — no exceptions**	Min/max logging thermometer recommended in warm months	Signs: rat lying flat on her side, labored breathing, drooling, unresponsiveness; immediate action — move to cooler area, wet paws and tail with cool (not cold) water, call vet. Do not wait to see if she recovers on her own
Air quality at cage level	Wire cage, ventilated room; no detectable ammonia odor at nose-to-cage-door distance	Lean in at cage door level and sniff — any ammonia smell means the rat has been living in it continuously	Chronic ammonia exposure is one of the most common causes of respiratory disease in otherwise well-fed, well-housed rats; it directly damages respiratory epithelium and triggers Myco
Direct sunlight and cold drafts	Avoid both	Position cage away from windows, HVAC vents, exterior walls, and frequently opened exterior doors	Direct sun: rapid heat stress regardless of room temperature; cold drafts: immune suppression and Myco trigger even when room ambient temperature is within range
Room air quality	No smoke, scented products, or chemical fumes in the cage room	Visual and smell check	Cigarette smoke, scented candles, plug-in air fresheners, essential oil diffusers, cleaning fumes, paint fumes, and heavily scented laundry detergent used on cage hammocks: all are direct respiratory irritants that trigger Myco episodes in otherwise stable rats

Ventilation: equally important as temperature

Ventilation is often the under-managed variable in rat husbandry. Most keepers monitor temperature and far fewer actively think about air quality. A cage in a closed room with no air circulation, a full litter pan from this morning, and substrate that has not been changed this week has ammonia levels that chronically damage respiratory tissue even when the thermometer reads a perfect 70°F. The rule is simple: if you can smell the cage from two feet away, the rats have been living in those fumes at close range, all day. A well-managed cage is nearly odorless at cage-door level. Ventilation, cleaning frequency, and substrate choice work together; no single one of them substitutes for the others.

SECTION 6

Diet & Nutrition



A high-quality lab block as the foundation, with fresh food variety making up the rest.

Fancy rats are true omnivores — they eat animal protein, plant material, grains, and fruit in the wild and require variety from all of these categories in captivity. This is a meaningful difference from herbivores like guinea pigs or rabbits: rats need a nutritionally complete foundation food, supplemented daily with fresh variety, and their digestive systems are well-suited to handling a wide range of foods in modest amounts.

Lab blocks: the nutritional foundation

The correct base for a fancy rat's diet is a high-quality, rat-specific lab block — a compressed pellet formulated to deliver complete, balanced nutrition in every single piece regardless of which piece the rat chooses to eat. Two products have earned consistent recommendation from rat welfare organizations and exotic veterinarians: **Oxbow Essentials Regal Rat** (a soy-free option is available in this line) and **Supreme Science Selective Rat**. Both are widely available online and from specialty pet retailers. Lab blocks should make up 70 to 80% of daily food intake.

The distinction between lab blocks and grain mixes deserves clear emphasis. Grain mixes — seed and cereal blends sold as rat or hamster food — look varied and enriching, and rats enjoy eating them. The problem is that rats eat their preferred components first and leave what they do not want. Over days and weeks, a rat eating from a grain mix consumes a diet skewed toward her favorite seeds and grains, creating predictable nutritional gaps. A rat eating lab blocks gets complete, balanced nutrition regardless

of preference, because there is only one product in the bowl. Lab blocks are less visually interesting than grain mixes. They are substantially better nutrition. Use them as the base.

Fresh food and variety

Daily fresh food keeps rats behaviorally engaged, provides micronutrient variety that no single pellet formula fully replicates, and is an important form of enrichment for an intelligent animal who experiences food as a meaningful event. Offer a small daily portion — roughly one to two tablespoons of mixed items per rat — and remove any uneaten fresh food within two to four hours before it spoils in the bedding.

Category	Safe examples	Notes and limits
Vegetables	Broccoli, kale, spinach, Swiss chard, green beans, sugar snap peas, cucumber, zucchini, bell pepper, cooked sweet potato, cooked pumpkin	**Raw sweet potato contains cyanogenic glycosides — never feed raw**; cooked sweet potato is safe and well-accepted; leafy greens are nutritionally excellent and can be offered daily; variety across the week is better than the same vegetable every day
Fruit	Banana, apple (seeds removed), blueberries, strawberries, raspberries, melon, pear, mango	High natural sugar — treat-sized portions; not a daily staple; apple seeds contain amygdalin (a cyanide precursor) — remove before offering; citrus has specific rules (see the citrus section below)
Protein	Cooked chicken (unseasoned), scrambled or hard-boiled egg, small amounts of plain cooked fish, occasional mealworms or dubia roaches	Protein supports muscle maintenance, especially valuable in rats over 18 months; avoid any seasoned, salted, or processed preparations
Dairy	Small amount of plain yogurt; mild hard cheeses such as cheddar, Colby, or Swiss	**Never blue cheese** — the *Penicillium* mold compounds used in blue cheese are toxic to rats; dairy in modest quantities is well-tolerated and clearly enjoyed
Grains and starches	Small amounts of cooked brown rice, plain cooked pasta, plain oats, unsalted whole grain crackers	Fine occasionally; not a substitute for lab blocks; high-carbohydrate items fed regularly contribute to weight gain

Never feed

These must not be given to any rat regardless of the amount:

- **Blue cheese** — *Penicillium* mold compounds are toxic to rats; even small amounts can cause serious illness
- **Raw sweet potato** — cyanogenic glycosides; cooked sweet potato is safe
- **Dried raw beans** — red kidney beans and many dry legumes contain lectins toxic when uncooked; canned or thoroughly cooked beans in small amounts are fine
- **Carbonated drinks** — rats cannot burp effectively; carbonation causes painful and dangerous gas buildup
- **Sticky foods** (undiluted peanut butter, gummy candy, sticky dried fruit) — aspiration and airway obstruction risk; rats cannot clear aspirated material
- **Alcohol** — toxic at any amount
- **Caffeine** — toxic; includes coffee, tea, energy drinks, and anything caffeinated
- **Chocolate** — theobromine toxicity; dark chocolate especially; no safe threshold

The male rat citrus rule

Citrus peel must never be fed to male rats — **bucks**. The essential oil **d-limonene**, concentrated in the peel and rind of oranges, lemons, limes, and grapefruit, causes alpha-2u-globulin accumulation in male rat kidneys — a specific form of chemically

induced kidney disease that is cumulative and irreversible. Female rats have a different protein profile and are not susceptible to this mechanism; does can have small amounts of citrus flesh (without peel) as an occasional treat. For bucks, the safe approach is to avoid all citrus including the flesh, given that d-limonene is present in both. It is not a risk worth taking for a fruit that is easily replaced with blueberries, strawberries, or apple.

Water

Provide fresh water daily in both a sipper bottle and a ceramic bowl. Rats vary individually: some drink almost exclusively from bottles, others prefer bowl water, and some use both. Providing both eliminates the possibility of a rat going underhydrated because she dislikes the bottle style, which can happen silently over days. The sipper nozzle is a bacteria accumulator and should be disassembled and scrubbed with a small bottle brush weekly. Water in both sources should be changed every single day regardless of apparent consumption level.

Foraging feeding

Scatter some lab blocks into the bedding rather than always presenting all food in a bowl. Add a foraging box — a cardboard tube or small box packed with crinkled paper strips and a handful of pellets buried inside — at every feeding. Fold treats into a paper square; press them into an egg carton; hide them in a tightly woven rope toy. Rats are built to forage, and a meal that takes fifteen to twenty minutes to locate is genuinely enriching in a way that a bowl of pellets cannot replicate. Foraging feeding extends the active period, reduces boredom-related behaviors, and is one of the highest-value, lowest-cost enrichment investments a rat keeper can make.

> ***Shop the food and supplies:*** *Browse Critter Food Treats & Feed.*

SECTION 7

Training & Enrichment

Fancy rats are among the most trainable small mammals available as pets — not "trainable for a rodent" but genuinely capable of complex learned behavior. They acquire new skills through positive reinforcement (a small food treat delivered at the moment of correct performance) in five to fifteen repetitions on average. Dogs frequently require more. This is not a party trick; it is a property of a species whose social survival depends on reading individual intentions accurately and learning which behaviors produce positive versus negative outcomes within a group dynamic. Training sessions are enrichment in themselves, and a rat who receives even five minutes of daily training work is behaviorally more settled and less stress-prone than one who receives handling alone.

Teaching name recall and come-when-called

Start with name recognition on day one of handling. Say the rat's name once and immediately offer a treat. Repeat six to eight times per short session, once or twice a day. Most rats show reliable orientation toward their keeper's voice within two to three days. Come-when-called follows naturally from name recognition: stand at one end of a couch or table, say her name, and offer a treat when she approaches. Gradually increase the distance over the first week. Within ten days, most rats recall reliably from across a room.

Simple tricks and behavioral complexity

After name recall and come-when-called are established, trained behaviors expand quickly with positive reinforcement:

- **Stand** — hold a treat just above nose height and wait for both front paws to leave the surface; mark the moment with a verbal cue and deliver immediately
- **Spin** — hold treat at nose level and move it slowly in a circle; the rat follows; mark the completion and add the verbal cue "spin" once the rotation is fluid
- **Jump** — hold a treat across a short gap on a raised surface; once confident, name the behavior; rats enjoy jumping between keeper's hands and learn this quickly
- **Name discrimination** — with two rats, call them individually and reward only the named rat who approaches; most bonded pairs learn to distinguish within a week

Enrichment rotation schedule

Rats habituate to a static environment within days — a cage that was novel on Monday is familiar by Friday. Rotate enrichment items weekly: swap out climbing structures, foraging boxes, and hide configurations on a rolling schedule. The introduction of any new object — a cardboard box, an unfamiliar safe-wood piece, a new hammock material, a novel food item — produces visible exploratory behavior immediately. An enrichment library does not need to be expensive. Toilet paper rolls, paper bags, cardboard tubes, small boxes, and dried herb bundles are all enriching, cost almost nothing, and can be replaced weekly without any budgetary strain.

Free-roam sessions

Rats require at least one hour of supervised free-roam time outside their cage every day. This is a welfare baseline, not optional enrichment. Even a well-designed, generously sized cage is a bounded environment. Free-roam time provides the novel space, the physical challenge, and the direct keeper interaction that no enclosure can replicate. Rats who never leave their cage develop boredom-related stereotypies at a higher rate and show measurably poorer health outcomes over their lifespan. Rat-proofing requirements and session management are covered in the Handling section.

SECTION 8

Common Challenges & Solutions

Respiratory infection — Mycoplasma (Myco)

What you see: a clicking, rattling, or crackling sound with each breath; labored breathing with visible body-wall movement; hunched posture with eyes partially closed and nose slightly elevated; sneezing with thick nasal discharge; rapid weight loss over days. **Why:** *Mycoplasma pulmonis* is endemic in virtually the entire captive rat population — most rats carry it subclinically for life. Clinical disease is triggered when respiratory defenses are compromised by poor air quality, ammonia exposure, temperature stress, another illness, or chemical irritants. Once triggered, Myco progresses quickly and permanently scars lung tissue with each active episode. **What to do:** confirm ventilation is adequate and eliminate any irritant sources in the cage room; keep the rat warm. **When to call a vet: today — same day, without waiting.** Respiratory infection is the leading cause of premature death in fancy rats. The standard first-line treatment — doxycycline combined with azithromycin — works well when started early and is far less effective against established lung scarring. One week of untreated clicking breath is a week of permanent respiratory damage. Do not wait to see if it clears on its own.

Mammary tumor in does

What you see: a firm or soft, moveable lump under the skin, most commonly on the belly, chest, or flank; typically appears and doubles in size within weeks. **Why:** mammary gland tumors are extremely common in intact female rats — close to 50% of intact does develop them by 18 months of age. The vast majority are **fibroadenomas** — benign tumors that do not metastasize — but they grow rapidly and can reach the size of a golf ball or larger, compromising mobility and quality of life even without malignancy. **What to do:** palpate each doe's belly and flanks monthly during handling sessions starting from the time she comes home. Small, freely moveable lump = book a vet appointment this week. Growing rapidly = call the vet today. Surgical removal is routine in exotic practices and most does recover well. Spaying before six months of age dramatically reduces the risk of both mammary tumors and uterine infection. **When to call a vet:** as soon as any lump is found. A fibroadenoma found at grape-size is a simple, fast surgery with a quick recovery. One found at lemon-size requires a longer, riskier procedure with a harder healing process. Do not wait.

Pituitary tumor

What you see: sudden-onset head tilt; circling repeatedly in one direction; loss of balance and difficulty staying upright; apparent confusion or blank expression; falling from platforms; progressive loss of coordination; rapid weight loss over a short period. **Why:** pituitary adenomas — tumors of the pituitary gland — develop in rats, most commonly females, typically in the second year of life. They compress adjacent brain structures as they grow, producing the neurological signs listed above with a rapid timeline. **What to do:** palliative treatment with corticosteroids (dexamethasone) can reduce tumor-related inflammation and temporarily restore some function. There is no surgical option for pituitary tumors in pet rats. **When to call a vet: same day as any neurological signs appear.** The vet conversation at this appointment is primarily about palliative support options, quality-of-life monitoring, and the timing of humane euthanasia. Pituitary tumor is an end-of-life indicator in a rat. Many owners find it genuinely helpful to have this conversation early rather than arriving at the decision in crisis.

Mites and lice

What you see: excessive scratching; patchy or thinning coat particularly around the neck, shoulders, and base of the tail; red, excoriated (scratched-raw) skin in the areas of fur loss; visible movement in the coat on very close inspection; tiny white nits (eggs) attached to individual fur shafts near the skin surface. **Why:** fur mites (*Radfordia affinis*, *Radfordia ensifer*) and sucking lice (*Polyplax spinulosa*) are common external parasites of pet rats, frequently introduced via infested bedding, pet store environments, or a new rat who was not quarantined before introduction. Stress can convert a subclinical infestation into a clinical one. **What to do:** all rats in the group must be treated simultaneously — treating one while leaving others untreated results in

reinfestation within days. Veterinary-prescribed ivermectin is the standard treatment. Deep-clean the cage and discard all substrate during treatment; launder all hammocks and fabric items on a hot cycle. A second treatment dose within ten to fourteen days is required to catch any hatchlings the first application missed. **When to call a vet:** within a few days of noticing clinical signs; severe skin excoriation or any secondary skin infection warrants a call sooner.

Hind leg degeneration (HLD)

What you see: gradual onset weakness of the hind limbs, first appearing as a slight drag or unsteadiness in the gait; progressing over weeks to partial then full paralysis of the hind end; the rat moves by pulling with the front limbs while the hind quarters trail; typically begins in rats 18 months or older. **Why:** degenerative myelopathy — age-related breakdown of the myelin sheath insulating the spinal neurons of the lumbar cord. The condition is not painful, is not treatable, and is manageable with enclosure modification. Some genetic lines show higher incidence. **What to do:** modify the enclosure significantly — remove all platforms the rat could fall from, replace ladders with ramps, ensure food, water, hammocks, and hides are all accessible from near floor level. Many rats with HLD remain bright, social, and fully engaged for months after losing hind function; they continue to forage, interact, and enjoy handling. Rat-adapted carts and wheelchairs exist and some keepers use them successfully. **When to call a vet:** confirm the diagnosis — head tilt plus hind weakness can indicate a pituitary tumor rather than isolated HLD; the vet can distinguish between the two and assess pain level.

Barbering

What you see: one or more rats in the group has neat, close-cropped bald patches — typically above the eyes, on the muzzle, or on the neck and shoulders — while appearing otherwise healthy and well-nourished; the remaining fur in the affected areas looks trimmed rather than scratched or pulled. **Why: barbering** is a dominance behavior in which the socially dominant rat systematically over-grooms subordinates, clipping fur down to skin level. It is social in origin, not medical. Overcrowding, resource competition, and insufficient enrichment significantly worsen it. **What to do:** confirm cage size is at minimum four cubic feet per rat; add hide boxes and feeding stations so subordinate rats can access resources without approaching the dominant animal directly; increase enrichment to reduce resource competition and redirect the dominant rat's activity. Separation is not usually necessary unless skin is broken. **When to call a vet:** only if skin is broken or showing signs of infection; barbering with intact skin is a management issue, not a medical one.

Respiratory aggravation from cage placement

What you see: new or worsening respiratory symptoms — sneezing, clicking, mild nasal discharge — that appear or worsen coincident with a specific household change: repainting the cage room, switching to a new cleaning product, lighting scented candles, installing an air freshener, increased cooking activity nearby, a smoker moving into the household, or the cage being relocated to a different room. **Why:** Mycoplasma sits dormant in most rats and activates in response to respiratory irritants. The list of potential triggers is longer than most owners expect: candle fragrance compounds, aerosol disinfectants, essential oil diffusers, cleaning product fumes, paint fumes, cooking oil vapor, cigarette smoke, and even heavily scented laundry detergent used to wash cage hammocks can all trigger an episode in a rat who was perfectly healthy the day before. **What to do:** identify and eliminate the irritant; move the cage to a room with consistently clean, low-chemical air if needed. **When to call a vet:** if respiratory symptoms do not clear within 24 to 48 hours of removing the trigger, book an appointment — subclinical Myco may have advanced to active infection requiring antibiotic treatment.

Uterine infection (pyometra) in intact does

What you see: lethargy; reduced or absent appetite; distended or firm abdomen; vaginal discharge that may be bloody, cloudy, or pus-like; increased water consumption; progressive abdominal swelling; obvious discomfort on belly palpation in more advanced cases. **Why:** intact does undergo estrus cycling approximately every four to five days throughout their adult lives. This repeated cycling without pregnancy stresses the uterine lining over time and creates conditions for bacterial infection. **Pyometra** — infection and pus accumulation in the uterus — is a life-threatening emergency that can advance to fatal systemic sepsis within 24 to 48 hours of becoming clinically apparent. **What to do:** there is no home management for this condition. Emergency veterinary

surgery is the only treatment. **When to call a vet: same day as signs are noticed.** Spaying a doe before 6 months of age eliminates pyometra risk entirely and simultaneously reduces mammary tumor incidence dramatically — two compelling and independent reasons to discuss early spay with an exotic vet who is comfortable with small mammal surgery.

Dental overgrowth and malocclusion

What you see: rat picking up lab blocks and then dropping them; showing interest in food but failing to eat effectively; preference for softer food items over hard pellets; wet or damp chin from drooling; visible elongation of upper or lower incisors past normal occlusion at the front; weight loss despite apparent appetite and activity level. **Why:** rats' incisors grow continuously throughout their lives and are maintained by the natural wear of upper and lower teeth meeting and grinding against each other. When the teeth do not align correctly — due to genetic misalignment, jaw trauma, or age-related changes — they overgrow past each other rather than wearing down, eventually preventing the rat from eating normally. **What to do:** provide ample gnawing material at all times — wood chews, hard lab blocks, untreated applewood or birch blocks — to support normal incisor wear. **When to call a vet:** incisor trimming under brief anesthesia is a routine procedure in exotic practice. Signs of dental trouble warrant a vet appointment within a few days before weight loss progresses; the vet can also assess whether malocclusion is a one-time event or an ongoing management challenge requiring periodic trims.

Quick reference

What you see	Likely cause	What to do	Vet urgency
Clicking, rattling, or crackling breath; labored breathing; hunched posture	Respiratory infection / Myco	Confirm ventilation; remove irritants; keep rat warm	**Today — same day**
Moveable lump on doe's belly, chest, or flank	Mammary tumor	Monthly self-exams; book when found	Soon — growing fast = call today
Sudden head tilt, circling, loss of balance	Pituitary tumor	Palliative options conversation	Same day
Excessive scratching; patchy coat; raw skin; visible movement in fur	Mites or lice	Treat all rats simultaneously; deep-clean cage	Within a few days
Progressive hind-end weakness; dragging gait; onset after 18 months	Hind leg degeneration	Modify enclosure; ramps; accessible resources	Confirm diagnosis soon
Neat bald patches on cagemates; trimmed not scratched	Barbering — dominance behavior	More space; more hides; more enrichment	Only if skin is broken or infected
Respiratory symptoms coincide with a room or product change	Cage placement / irritant trigger	Remove irritant; ventilate	24–48 hours with no improvement
Lethargy; abdominal swelling; vaginal discharge in intact doe	Pyometra — uterine infection	No home management — emergency vet	**Today — same day**
Dropping food; wet chin; elongated incisors	Dental malocclusion	Provide gnawing material; schedule incisor trim	Within a few days

SECTION 9

Handling & Free Roam

How to pick up a rat

Always approach from the side or from below — **never from above.** A hand descending from overhead activates the aerial predator response hardwired into every rat over millions of years of hawk and owl predation. A rat who would readily crawl onto your hand from the side will freeze, bolt, or bite defensively when approached from above — not because she is unfriendly, but because an overhead silhouette matches every predator she is genetically programmed to fear.

Cup both hands and slide them under the rat from below and to the side, supporting the full body length. Lift slowly and evenly. Allow her to move forward from hand to hand — "treadmilling" over your hands and forearms — rather than gripping or restraining her. A rat in motion is a rat who is exploring rather than stressed. Support the body fully at all times; a rat whose hindquarters hang unsupported will thrash, and a fall from handling height can injure a rat seriously.

Scruffing — holding a rat by the loose skin at the back of the neck — is not appropriate for routine handling. It may be used briefly for specific veterinary procedures, but it is not a standard technique for home interaction with a domestic rat.

First-week settling protocol

Days 1–3: no handling. Sit beside the cage, talk quietly, and let the rats learn your voice and scent as neutral and non-threatening. Check water and food once or twice a day without disturbing the enclosure setup.

Days 3–4: open the cage door and place your hand still just inside the entrance with a small treat resting on your palm. Do not reach toward the rats. If they approach and sniff your hand, that is progress for the day. If they take the treat from your palm, that is a fully successful session.

Days 5–6: let them step onto your hands voluntarily. Invite rather than pursue. A rat who walks onto your palm has decided you are safe. That decision takes longer to earn than it does to lose — treat it accordingly.

Day 7 and beyond: gentle handling sessions of five to ten minutes once or twice daily. Most rats are comfortable with being picked up by the end of the first week. Very shy or previously mishandled rats may need two to three weeks of patient invitation before they are fully relaxed with handling.

Free-roam rat-proofing checklist

Before any free-roam session, confirm the room is safe:

- **Electrical cords covered or relocated** — rats chew; an unprotected power cord is an electrocution risk with real and rapid consequences
- **Gaps under and around appliances blocked** — refrigerator, stove, washing machine, and dishwasher; rats can enter these spaces and some have no safe way back out
- **Gaps under doors secured** — a determined rat can squeeze through surprisingly small threshold gaps
- **Toxic houseplants removed** — philodendron, pothos, and many common houseplants are toxic to rats; remove them or use a rat-free room
- **No open water vessels at floor level** — toilet lids down, sinks empty, buckets cleared, floor-level vases removed; rats can drown in surprisingly little water
- **All medications, supplements, and cleaning products out of reach**

- **Access behind the refrigerator and stove blocked** — these areas are warm, dark, and effectively inaccessible once a rat disappears into them
- **Rat count confirmed before closing any door** — know exactly how many rats are out and confirm all are accounted for before the session ends

Children

Rats are excellent with children who are taught to interact calmly. Always seat children on the floor for rat interaction — never allow a child to carry a rat while standing, as a startled rat who jumps from standing height falls far enough to injure herself. Teach children to let the rat move freely rather than restraining her, to recognize when a rat is turning away or pushing against a grip as a clear request to be set down, and to offer treats from an open palm. Adult supervision is required with young children. A rat who is grabbed too tightly will bite as a reflex response; that bite is minor, but it is better prevented entirely through handling instruction from the first interaction.

SECTION 10

Routine Care Calendar

How often	What to do
Daily	Refill and check both water sources — sipper bottle and ceramic bowl; replace immediately if fouled
Daily	Spot-clean the litter pan; remove soiled material and replace with fresh litter
Daily	Observe each rat at the active period: normal breathing? Normal movement and posture? No hunching or labored breath?
Daily	Remove any uneaten fresh food within 2–4 hours of offering
Daily	Top up lab blocks; scatter some into the bedding as foraging
Daily	Provide at least 1 hour of supervised free-roam time
Every 2–3 days	Full fleece liner change if using fleece substrate; soiled liners become ammonia sources quickly
Weekly	Full substrate change: remove all bedding, scrub all solid platforms and cage surfaces, launder all hammocks and fabric items on a hot wash cycle
Weekly	Disassemble and scrub the sipper bottle nozzle with a small brush; wash the water bowl; dry both completely before refilling
Weekly	Hands-on health check of each rat: weigh on a gram scale and record; palpate each doe's belly and flanks for any lumps; inspect coat quality, breathing, and incisor length
Weekly	Rotate enrichment items — swap foraging boxes, climbing structures, and novel objects on a rolling schedule
Monthly	Full cage deep clean — disinfect all interior cage surfaces with a rat-safe disinfectant; rinse completely and dry before replacing substrate and furnishings
Monthly	Photograph each rat from above and from the side for a body-condition baseline to compare over time
Monthly	Trim nails if needed — hold rat gently against your body, use small rodent nail clippers to take just the tip; avoid the quick (the pink vascular tissue visible in light-colored nails)
Every 6 months	Exotic vet wellness check for each rat; include a fecal exam for internal parasites
As needed	Reassess group dynamics and enclosure setup after any new rat introduction or after the loss of a companion

SECTION 11

When to See a Vet

Rats are prey animals — they mask vulnerability instinctively, and by the time illness is visible to the keeper, things have typically been wrong for longer than they appear. The rule: **when you are not sure whether to call, call.**

Go today — same day or emergency:

- Any clicking, rattling, crackling, or wet sound during normal breathing
- Labored breathing — visible abdominal heaving with each breath, open-mouth breathing, or a hunched posture that signals respiratory effort
- Sudden head tilt, circling, or loss of balance — suspected pituitary tumor
- Rat found unresponsive, flat on her side, or unable to right herself — suspected heat stroke, severe systemic illness, or trauma
- Vaginal discharge, abdominal distension, or lethargy in an intact doe — suspected pyometra
- Any prolapsed tissue from the urogenital area
- Any wound with exposed tissue or bleeding that does not slow on its own within a few minutes

Book within a few days:

- Any new lump found on a doe's belly, chest, or flanks
- Progressive hind leg weakness or dragging gait — confirm diagnosis and adjust enclosure setup
- Significant weight loss — more than 10% of body weight over one to two weeks
- Wet chin, food dropping, or visible incisor elongation — suspected dental malocclusion
- Persistent sneezing or nasal discharge after reviewing ventilation and removing all identified irritants
- Barbering with broken skin or a subordinate rat showing measurable weight loss
- Any behavior that is out of character: unusual lethargy, prolonged hiding, uncharacteristic aggression, or loss of interest in food and interaction

Find your exotic vet now, before you need one. Confirm they treat rats specifically — rat medicine, and particularly Mycoplasma management and small mammal surgery, benefits from a practitioner with hands-on experience with this species. Keep the number accessible. Bring a weight log, a recent feeding record, and notes on any enclosure or environmental changes made in the last two weeks.

SECTION 12

FAQ

Are fancy rats good pets?

Fancy rats are exceptional pets for the right home, and the gap between what they offer and what most people expect before they actually have one is substantial. A rat who has been handled patiently from a young age forms a genuine bond with her keeper — she knows your voice, recognizes your scent, comes when called, and shows unmistakable enthusiasm when you approach the cage. She is trainable in a meaningful sense: name recall in days, reliable recall in a week, and an expanding repertoire of tricks and behaviors in any direction you want to take the training sessions. She is socially complex enough to entertain daily interaction for her entire life and intelligent enough to be genuinely bored without it. The honest counterweight is the short lifespan — two to three years is a real loss for what will have been a real bond — and the daily time investment required: free-roam sessions, handling, enrichment rotation, and consistent cleaning. The commitment is also always for at least two rats, not one. For families or individuals who can give them what they need, there is almost no small pet that rewards the investment more completely.

How long do pet rats live?

The honest answer is two to three years, and rarely beyond three. Some individuals reach three and a half years; rats who live past four are genuinely exceptional. This is shorter than most people realize before their first pair comes home, and it deserves to be stated clearly. Lifespan is shaped by genetics, care quality, and some degree of luck — a rat who avoids serious Mycoplasma episodes, gets early treatment when illness appears, and lives in a well-ventilated, correctly temperatured environment with daily enrichment and interaction reaches the higher end of that range more often than one who does not. Preventive veterinary care makes a measurable difference, especially for does, where spaying before six months significantly reduces the two most common causes of early death — mammary tumors and uterine infections. Many experienced rat owners stagger the ages of their groups so that a younger pair can be introduced while older companions are still healthy and alive, ensuring no rat spends her final weeks alone.

Do rats need to live in pairs?

Yes, without exception. Fancy rats are social animals whose psychology is organized entirely around group living — they sleep in piles, groom each other constantly, regulate each other's stress responses through contact and proximity, and suffer measurable physiological harm when isolated. A lone rat is not a rat in a simpler care routine; she is a rat in social deprivation. Solo housing produces elevated cortisol, immune suppression, behavioral stereotypies, and shortened lifespans within weeks of isolation. A same-sex pair is the minimum. Groups of three to five same-sex rats provide even richer social environments and often result in calmer, less anxiety-prone individuals across the group. Same-sex housing is essential: does reach sexual maturity at around five weeks of age and produce litters of eight to sixteen pups every three weeks — an unmanaged mixed-sex situation escalates to a colony with no practical intervention point. Introductions between unfamiliar adult rats require a structured protocol and cannot simply be done by placing them together in a shared cage.

What do rats eat?

The foundation of every rat's diet should be a high-quality, rat-specific lab block — Oxbow Essentials Regal Rat and Supreme Science Selective are the consensus picks from rat welfare organizations and exotic veterinarians — making up 70 to 80% of daily intake. Lab blocks provide complete, balanced nutrition in every single piece, eliminating the selective-eating problem that makes grain and seed mixes nutritionally unreliable over time. The remaining 20 to 30% should come from daily fresh food: vegetables (broccoli, kale, cooked sweet potato, green beans), small amounts of fruit, occasional cooked lean protein such as chicken or scrambled egg, and modest amounts of mild dairy. Foods that must never be given to any rat include blue cheese, raw sweet potato, dried raw beans, carbonated drinks, sticky foods, alcohol, caffeine, and chocolate. Male rats specifically must never have citrus peel — the compound d-limonene causes a cumulative, irreversible form of kidney damage in bucks that has no equivalent

in females.

What size cage do rats need?

Rats need a tall, multi-level wire cage with a minimum of four cubic feet of space per rat. For a pair, that means at least eight cubic feet of total interior volume — in practical terms, a cage at least 24 × 24 × 36 inches, and larger whenever possible. Height matters as much as footprint: rats are enthusiastic climbers who use vertical space heavily during their active hours, and a tall cage with multiple levels is more behaviorally enriching than a wide-footprint cage of the same volume. Bar spacing must not exceed half an inch for adult rats. Solid platform floors are required at every level — wire mesh causes pododermatitis over time. Glass aquariums are never appropriate regardless of size: they trap ammonia from rat urine at concentrations that chronically damage the respiratory tract and trigger Mycoplasma infections in a species that already carries the bacteria. A correctly sized wire cage is one of the highest-impact decisions you make for your rats' long-term respiratory health.

Do pet rats smell?

Well-managed rats themselves have no unpleasant body odor — they are fastidiously clean animals who groom themselves like cats and produce no persistent personal scent on their own. The smell associated with rats comes from ammonia released by urine decomposing in the cage bedding, which is a cage management issue rather than an intrinsic characteristic of the animal. A cage with paper-based substrate spot-cleaned daily and fully changed weekly, a separate litter pan cleaned every day, and adequate cross-ventilation produces very little detectable odor at normal distances. Intact male rats (bucks) scent-mark by depositing small amounts of urine as they move and carry a mild musky scent of their own; neutering significantly reduces both scent marking behavior and personal odor in bucks. Choosing does rather than bucks, maintaining consistent cleaning practice, and using paper-based bedding with good ammonia absorption addresses almost all odor concerns in a well-run setup.

Are rats smart?

Rats are one of the most cognitively capable small mammals available as pets, and the comparison to dogs in terms of learning, problem-solving, and emotional bonding is not an exaggeration. Research has confirmed that rats demonstrate genuine empathy — working to free trapped companions, sharing food with hungry cagemates with no reward offered for doing so — along with individual recognition of humans by voice and scent, accurate memory of learned solutions weeks after initial training, multi-step problem-solving, and metacognition: an awareness of their own knowledge state considered a high-level cognitive marker rarely documented outside primates. In a home setting, this translates directly to name recognition within days, reliable recall within a week, and an expanding repertoire of trained behaviors limited primarily by how much time the keeper invests. Rats given nothing to do and no one to interact with are genuinely bored in a clinically meaningful sense, and they show it — in stereotypic repetitive behaviors, reduced immune function, and measurably shorter healthy lifespans. Their intelligence is not a fun bonus. It is the reason enrichment, training, and daily interaction are welfare requirements for this species.

What is bruxing in rats?

Bruxing is the rhythmic grinding of a rat's front incisors — audible as a rapid, soft clicking or chattering sound — and it is the rat equivalent of a cat purring, signaling contentment, relaxation, and positive social comfort. When bruxing is particularly deep and sustained, it is often accompanied by **boggling**: a rapid oscillation of the eyes in their sockets, visible as a slight rhythmic shimmer or vibration around the eye area, caused by the jaw muscles pressing on the underside of the eye socket with each grinding motion. Boggling looks alarming the first time you see it — the eyes appear to vibrate independently of the head — and is completely harmless. Both bruxing and boggling are involuntary, positive responses. A rat who bruxes and boggles while being held or while being scratched behind the ears is communicating clearly that the interaction is working and that she is genuinely comfortable. New rat owners frequently mistake bruxing for distress, dental pain, or a respiratory symptom; recognizing it correctly eliminates unnecessary worry and gives you real-time feedback that your handling approach is on the right track.

Can rats get tumors?

Yes, and at a rate that surprises most people who have not kept rats before. Mammary tumors affect close to 50% of intact female rats by 18 months of age, making them one of the most commonly encountered health events in rat keeping. The vast majority are fibroadenomas — benign tumors that do not spread to other tissue — but they grow fast and can become large enough to seriously impair mobility and quality of life if not removed. Surgical removal is routine in exotic practices and most does recover quickly, especially when the tumor is found early. Monthly hands-on exams — running your fingers along each doe's belly and flanks during handling — allow you to find tumors when they are small, easy to remove, and low-risk to treat. Spaying before six months of age dramatically reduces mammary tumor incidence and eliminates uterine infection risk. Pituitary adenomas affect both sexes, typically appearing in the second year of life, and produce the neurological signs — sudden head tilt, circling, loss of balance — that indicate an end-of-life trajectory in an older rat.

Do rats need to be out of their cage?

Yes, every day, for a meaningful amount of time. A minimum of one hour of supervised free-roam time outside the cage is a welfare baseline for fancy rats — not optional enrichment, but a genuine species need. Rats are active, curious, and cognitively demanding animals, and even a well-designed, generously sized cage is a bounded, eventually familiar space. Free-roam time provides novel space to explore, physical exercise the cage alone cannot supply, and the direct keeper interaction that is central to the human-rat bond. Rats who never leave their enclosures develop boredom-related stereotypies more frequently, remain less socially confident, and show shorter healthy lifespans than those who receive consistent daily out-of-cage time. Free-roam does require rat-proofing a space in advance — electrical cords covered, gaps blocked, open water cleared — but once the space is established, the daily session is consistently one of the most enjoyable and rewarding parts of rat ownership for both the keeper and the rats.

> ***Ready to shop?*** *Start with Critters!. 10% of every purchase supports no-kill animal shelters. Not sure this is the right pet? Compare your options in our Small Animal Guide.*

SECTION 13

Every Purchase Gives Back

Before we earn a dime, **10% of every purchase at Walnut Creek Supply goes to no-kill animal shelters across the country.** Not as a round-up at checkout. Not as a once-a-year campaign. Off the top of every order, every day — because the same values that lead a family to read a care guide before bringing home a mischief of rats are the values we believe in.

Fancy rats arrive at small-animal rescues in significant numbers. Most come in single, in aquariums, malnourished from grain mixes fed as a complete diet, with untreated respiratory disease the previous owner noticed but waited on for a few weeks too long. They are resilient animals: given correct ventilation, a same-sex companion, lab blocks, daily interaction, and a vet appointment for the Myco that almost every surrendered rat carries clinically, most recover their social confidence and health quickly. If you can adopt before you shop, rat rescues in most regions have bonded pairs of all ages, coat types, and temperaments waiting for a keeper who knows what they are doing. And if you do shop with us, we keep it honest: no grain mixes marketed as balanced diets, no cedar or pine bedding, no small cages described as "starter kits." Only what we would put in front of our own animals.

We are a family business in Christiana, Lancaster County, Pennsylvania. We grow our own food, keep our own animals, and stock only what we would use ourselves — **no mystery ingredients, no shortcuts.** If you have a question about your rats' respiratory health, how to set up a multi-level cage, or what that clicking sound means at 2 in the morning, call us at **(717) 983-8069**. We would rather talk you through it.

Welcome to two or three years of an animal who knows your voice, comes when you call her, and falls asleep on your shoulder like she has always lived there.

From our family to yours, **Walnut Creek Supply** — Christiana, Lancaster County, Pennsylvania *walnutcreeksupply.com*