YOUR FREE READER'S COMPANION

The CRCST Rapid-Review Pack

A companion to The Sterile Processing Technician CRCST Exam Study Guide · by Dana Kessler

Thanks for picking up the study guide. This companion is the part you carry with you: fold it into your notebook, tape it inside your locker, or read it in the break room before you walk in to test. It pulls the sterilization parameters, the indicator classes, the Spaulding logic, the seven exam domains, and fifty rapid-fire questions into a few pages you can drill in an afternoon. Every value here uses the commonly published parameters taught from the HSPA Central Service Technical Manual and the AAMI ST79 principles, so nothing here contradicts what you studied. This is the 2026 edition.

Most people who struggle on the CRCST do not struggle on big ideas. They struggle on a handful of numbers and a couple of distinctions they never quite nailed down: gravity versus prevacuum times, chemical indicators versus biological indicators, and which organism monitors which method. Get your sterilization parameters automatic, know what each indicator actually proves, keep the workflow moving one direction from dirty to clean to sterile, and you have already answered most of the questions that trip everyone else. Carry this, drill it, and walk in calm. - Dana

Sterilization Parameters Cheat Sheet

The exam loves exposure times and temperatures. Learn them cold and give yourself both Fahrenheit and Celsius, because questions swap the units on you. Remember the three pillars of any sterilization cycle: time, temperature, and the sterilant contact (steam, gas, or vapor). Miss one and the load is not sterile.

Steam sterilization (moist heat)

Steam kills by moist heat that denatures proteins. It is the preferred method for any heat-tolerant and moisture-tolerant device because it is fast, non-toxic, and cheap. The two cycle types differ in how they get air out of the chamber.

Cycle type	Temperature	Typical exposure	How air is removed
Gravity displacement	250 F / 121 C	about 30 minutes (wrapped)	steam pushes air out by gravity
Gravity displacement	270 F / 132 C	about 15 minutes (varies by load)	steam pushes air out by gravity
Prevacuum (dynamic air removal)	270 to 275 F / 132 to 135 C	about 4 minutes	vacuum pump pulls air out first

- Gravity is slower because it relies on steam displacing air; prevacuum is faster because a pump evacuates the air before steam enters.
- Always follow the device manufacturer instructions for use (IFU); the IFU wins over any general chart.
- Drying time is part of the cycle. Wet packs are considered contaminated. Do not touch or handle wet loads.
- After steam, everything goes through a cool-down. Do not stack hot trays or handle them until cooled, or you cause wet packs and burns.

Low-temperature sterilization (heat-sensitive and moisture-sensitive items)

When a device cannot take heat or moisture (flexible scopes, cameras, plastics, battery items), you move to a low-temperature method.

Method	Typical temperature	Notes
Ethylene oxide (EO or EtO)	about 99 to 145 F / 37 to 63 C	long cycle plus mandatory aeration; gas is flammable, toxic, and a known carcinogen
Vaporized hydrogen peroxide (VH_2O_2)	about 99 to 122 F / 37 to 50 C	shorter cycle, no aeration needed, breaks down to water and oxygen

- Ethylene oxide needs four parameters in balance: gas concentration, temperature, humidity, and time. It then needs aeration (commonly 8 to 12 hours) to remove toxic residuals before items are safe to handle.

- EO cannot process items with lumens that trap moisture, and cellulose (paper, cotton, gauze) absorbs EO, so it is not used inside EO loads.
- Vaporized hydrogen peroxide is limited on long narrow lumens and cannot process cellulose or liquids either, but it is faster and safer to handle because there is no toxic residual and no aeration step.
- Dry heat is another low-moisture option for oils, powders, and petroleum items that steam cannot penetrate; it runs hot for a long time (commonly around 320 to 340 F / 160 to 170 C for one to two hours).

Indicators, Biologicals, and Spaulding

This is the section that separates people who pass from people who guess. You have to know what each monitor actually proves. An indicator that changes color is not proof of sterility. Only a biological indicator (BI) proves that spores were killed.

The six chemical indicator (CI) classes (ISO 11140)

Chemical indicators change color or form when exposed to one or more cycle conditions. The class numbers describe intended use and how many variables they react to. They are not a ranking; a Class 6 is not simply better than a Class 1.

Class	Common name	What it reacts to / proves
Class 1	Process indicator	Went through a process versus did not; goes on the outside of every pack (autoclave tape, pouch marks)
Class 2	Specific-test indicator	Tests one function, most famously the Bowie-Dick air-removal test for prevacuum sterilizers
Class 3	Single-variable indicator	Reacts to one critical variable, usually temperature
Class 4	Multi-variable indicator	Reacts to two or more critical variables
Class 5	Integrating indicator	Reacts to all critical variables; performance correlates to a biological indicator
Class 6	Emulating indicator	Reacts to all critical variables of one specific named cycle; the most cycle-specific CI

- Put a Class 1 external indicator on every package and an internal CI (commonly Class 4, 5, or 6) inside every package.
- Run a Bowie-Dick test (a Class 2 test) each day the prevacuum sterilizer is used, in an otherwise empty chamber, as the first cycle. It checks for air removal and air leaks, not sterility.
- A CI that passes does not release the load on its own. It is a checkpoint, not final proof.

Biological indicators (BIs): the only true proof of a kill

A BI contains live, highly resistant bacterial spores. If the cycle kills them, it will kill anything less resistant. The organism is matched to the method.

Sterilization method	Biological indicator organism
Steam and vaporized hydrogen peroxide	Geobacillus stearothermophilus
Ethylene oxide (EO) and dry heat	Bacillus atrophaeus

- Run a BI in every load that contains an implant, and hold the implant until the BI result is read (a

Class 5 integrator may allow early release only in a documented emergency).

- A process challenge device (PCD), also called a test pack, holds the BI and often a CI to present a hard challenge to the sterilant.
- Steam BIs are commonly run at least daily and preferably in every load; EO loads get a BI in every load.
- A positive BI (spores grew) means the load failed. Recall the load, quarantine, and investigate before releasing anything.

The Spaulding classification (drives how a device is processed)

Spaulding sorts devices by infection risk, which sets the minimum level of processing.

Category	Contact	Minimum processing
Critical	Enters sterile tissue, the bloodstream, or the vascular system (surgical instruments, implants)	Sterilization
Semicritical	Contacts mucous membranes or non-intact skin (flexible endoscopes, respiratory equipment)	High-level disinfection at minimum
Noncritical	Contacts intact skin only (blood pressure cuffs, bed rails)	Low- or intermediate-level disinfection

- Cleaning always comes first. You cannot sterilize or disinfect what is not clean; organic soil shields microorganisms.
- When in doubt about a semicritical device, moving up to sterilization is acceptable if the item tolerates it.

The Seven Domains and High-Yield Facts

The CRCST is 150 multiple-choice questions in 180 minutes (3 hours), and 25 of those questions are unscored pretest items. It is organized into seven domains. Know roughly where the weight sits so you spend your last study hours where the points are.

Domain weightings

Domain	Approx. weight
Cleaning, Decontamination, and Disinfection	about 20 percent
Preparation and Packaging	about 20 percent
Sterilization Process	about 20 percent
Patient Care Equipment	about 10 percent
Sterile Storage and Inventory Management	about 10 percent
Documentation and Record Maintenance	about 10 percent
Customer Relations	about 10 percent

The three heavy domains (decontamination, prep and packaging, sterilization) are together about 60 percent of the exam. If time is short, drill those.

Decontamination high-yield facts

- Workflow runs one direction only: dirty to clean to sterile. The decontamination area is physically separated and held at negative air pressure so contaminated air does not drift into clean areas.
- Point-of-use treatment (keeping instruments moist, removing gross soil) starts at the surgical field so soil does not dry and harden.
- Wash water enzymatic and detergent temperatures matter: enzymatic cleaners work best in warm water (commonly around 80 to 110 F / 27 to 43 C); water above roughly 140 F / 60 C can coagulate protein soil and make it stick.
- Personal protective equipment in decontamination is full: fluid-resistant gown, gloves, mask, and face shield or goggles.
- Ultrasonic cleaners remove fine soil by cavitation. Manual cleaning and inspection come before any automated washer or ultrasonic step.
- Water quality counts. Critical (final) rinse commonly uses treated water (deionized or reverse osmosis) to prevent mineral spotting and staining.

Preparation and packaging high-yield facts

- Inspect every instrument for cleanliness, function, and damage under lighting or magnification before assembly. A dirty or broken instrument never advances.

- Hinged instruments are packaged open and unlocked so the sterilant reaches every surface.
- Packaging must allow sterilant in, keep contaminants out, and permit aseptic delivery. Wrap, pouches, and rigid containers all have weight and configuration limits.
- Peel pouches are loaded so the item can be presented without touching the inside; paper faces paper, plastic faces plastic when double-pouched, and you do not pouch-within-a-pouch tightly.
- A standard wrapped instrument set commonly should not exceed about 25 pounds, which limits condensate and wet packs.

Sterile storage and standards high-yield facts

- Store sterile items on shelving that keeps them off the floor, away from the ceiling, and off outside walls: commonly at least 8 to 10 inches off the floor, at least 18 inches below the ceiling or sprinkler heads, and at least 2 inches from outside walls.
- Typical environmental targets for sterile storage: temperature commonly around 64 to 75 F / 18 to 24 C and relative humidity commonly kept at or below 60 percent (often cited as a 30 to 60 percent range); follow your facility policy.
- Sterile storage is a positive-pressure, low-traffic, clean area with controlled air changes.
- Event-related sterility is the common model: a package stays sterile until an event (a tear, wetness, a drop, a broken seal) compromises it, not merely because a date passed. Always check integrity before use.
- Practice stock rotation (first in, first out) to keep older inventory moving.

The standards to name-drop

- AAMI (Association for the Advancement of Medical Instrumentation), especially ST79, gives comprehensive steam sterilization guidance.
- AORN (Association of periOperative Registered Nurses) publishes perioperative practice guidelines.
- CDC (Centers for Disease Control and Prevention) publishes disinfection and sterilization guidelines and is where Spaulding lives.
- OSHA (Occupational Safety and Health Administration) covers worker safety: the Bloodborne Pathogens Standard, hazard communication, and PPE.
- The FDA regulates the sterilizers and devices themselves, and manufacturer IFUs carry the force of a standard in practice.

Fifty Rapid-Fire Practice Questions

Read the question, say the answer out loud, then uncover it. Do the whole set the night before and again the morning of. If you miss one, flag the domain and reread that section.

Question	Answer
What must happen before any disinfection or sterilization?	Cleaning
Which direction does workflow move?	Dirty to clean to sterile
Air pressure in the decontamination area?	Negative
Air pressure in sterile storage?	Positive
Preferred method for heat- and moisture-tolerant devices?	Steam (moist heat)
Gravity steam temperature and time (wrapped)?	250 F / 121 C, about 30 minutes
Prevacuum steam temperature and time?	270 to 275 F / 132 to 135 C, about 4 minutes
How does prevacuum remove air?	A vacuum pump pulls it out before steam enters
How does gravity displacement remove air?	Steam pushes air out by gravity
What does a wet pack mean?	It is considered contaminated
Two common low-temperature methods?	Ethylene oxide and vaporized hydrogen peroxide
Ethylene oxide temperature range?	About 99 to 145 F / 37 to 63 C
Why does EO require aeration?	To remove toxic residual gas before handling
Four EO parameters?	Gas concentration, temperature, humidity, time
One safety hazard of EO?	Flammable, toxic, and a known carcinogen
What does VH2O2 break down into?	Water and oxygen
A limitation shared by EO and VH2O2?	Cannot process cellulose (paper, cotton, linen)
Which low-temp method needs no aeration?	Vaporized hydrogen peroxide
Dry heat is used for what items?	Oils, powders, and petroleum-based items
What does a chemical indicator prove?	Exposure to a condition, not sterility
What is the only proof of a kill?	A biological indicator
Class 1 chemical indicator is a?	Process indicator (outside of the pack)
Which class is the Bowie-Dick test?	Class 2 (specific-test)
Class 3 indicator reacts to?	One critical variable, usually temperature
Class 4 indicator reacts to?	Two or more critical variables
Class 5 indicator is called?	An integrating indicator

Class 6 indicator is called?	An emulating indicator
What does the Bowie-Dick test check?	Air removal and leaks in a prevacuum sterilizer
When is the Bowie-Dick test run?	First cycle of the day, empty chamber
BI organism for steam?	Geobacillus stearothermophilus
BI organism for VH2O2?	Geobacillus stearothermophilus
BI organism for ethylene oxide?	Bacillus atrophaeus
BI organism for dry heat?	Bacillus atrophaeus
What holds a BI to challenge the load?	A process challenge device (test pack)
A load with an implant requires what?	A BI, held until the result is read
A positive BI means?	The load failed; recall and quarantine it
Spaulding: item entering the bloodstream is?	Critical (requires sterilization)
Spaulding: item touching mucous membranes?	Semicritical (high-level disinfection minimum)
Spaulding: item touching intact skin only?	Noncritical (low- or intermediate-level disinfection)
How are hinged instruments packaged?	Open and unlocked
Packaging must do what three things?	Admit sterilant, block contaminants, allow aseptic delivery
Common maximum weight of a wrapped set?	About 25 pounds
PPE required in decontamination?	Gown, gloves, mask, and face shield or goggles
How does an ultrasonic cleaner work?	Cavitation (microscopic bubbles)
Why treated water for the final rinse?	Prevents mineral spotting and staining
Shelf clearances for sterile storage?	About 8 to 10 in off floor, 18 in below ceiling, 2 in from outside walls
Sterility model used in most facilities?	Event-related (integrity, not just a date)
Which standard is AAMI ST79 about?	Steam sterilization guidance
Which agency covers the Bloodborne Pathogens Standard?	OSHA
Total questions and time on the CRCST?	150 questions in 180 minutes (3 hours)

That is the whole pack. Drill the parameters until the numbers are automatic, know what each indicator actually proves, keep the workflow moving one direction, and trust the logic. You have done the work. Walk in and pass. - Dana