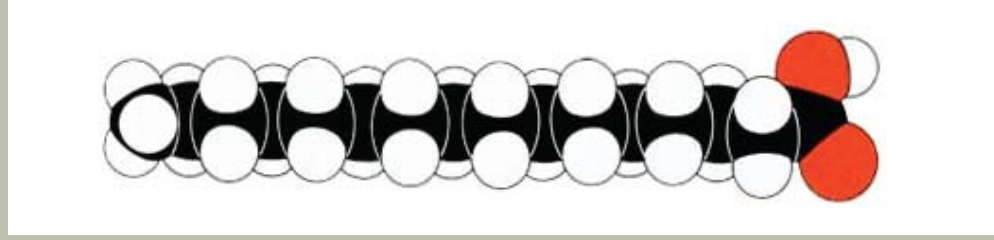


Mystery Molecule

This is a representation of a class of compounds, many of which are “essential” elements of a healthy diet. Can you guess what it is?



Monocarboxylic acids (the -COOH moiety is on the right of the image) present in the diet usually have an even number of carbon atoms in an unbranched chain (stretching to the left). Saturated fatty acids have no double-bonds in the carbon chain; unsaturated fatty acids may have up to six double-bonds. We can manufacture most of the fatty acids that we need, but those that we cannot are called “essential” fatty acids. The most important is linoleic acid. It is probably no accident that human milk fat is rich in linoleic acid.

Answer: Fatty acid

Avera Laboratory Network Lab Links is published quarterly to provide information of interest from labs of the Avera Laboratory Network. Questions may be directed to your Avera Laboratory Network representative.

Avera St. Luke's Hospital, Aberdeen
 Avera Queen of Peace Hospital, Mitchell
 Avera McKennan Regional Lab, Sioux Falls
 Avera Sacred Heart Hospital, Yankton
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OSHA's BLOODBORNE PATHOGENS STANDARD

Bloodborne pathogens are infectious microorganisms present in blood that can cause disease. These pathogens include, but are not limited to, the hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV) — the virus that causes AIDS. Workers exposed to bloodborne pathogens are at-risk for serious or life-threatening illnesses.

Protections Provided by OSHA's Bloodborne Pathogens Standard

All of the requirements of the Occupational Safety and Health Administration's (OSHA's) Bloodborne Pathogens standard can be found in Title 29 of the Code of Federal Regulations at 29 CFR 1910.1030. The requirements state what employers must do to protect employees who are occupationally exposed to blood or other potentially infectious material (OPIM), as defined in the standard. The standard protects employees who can reasonably be anticipated to come into contact with blood or OPIM as a result of doing their jobs.

In general, the standard requires employers to:

- Establish an exposure control plan. This is a written plan to eliminate or minimize occupational exposures. The employer must prepare an exposure determination protocol that contains a list of job classifications in which all employees have occupational exposure, along with a list of the tasks and procedures performed by those employees that result in exposure.
- Update the plan annually to reflect changes in tasks, procedures and positions that affect occupational exposure, and also technological changes that eliminate or reduce occupational exposure. Employers must annually document in the plan that they have considered and begun using appropriate, commercially available, effective and safer medical devices designed to eliminate or minimize occupational exposure. Employers must document that they have solicited input from frontline staff in identifying, evaluating and selecting effective engineering and work practice controls.
- Implement the use of universal precautions (treat all human blood and OPIM as if known to be infectious for bloodborne pathogens).
- Identify and use engineering controls. These are devices that isolate or remove the bloodborne-pathogens hazard from the workplace. They include sharps disposal containers, self-sheathing needles and safer medical devices, such as sharps with engineered sharps — injury protection and needle-less systems.
- Identify and ensure the use of work practice controls. These practices reduce the possibility of exposure by changing the way a task is performed. Examples include:
 - Appropriate practices for handling and disposing of contaminated sharps
 - Correct handling of specimens
 - Proper handling of laundry
 - Appropriate cleaning of contaminated surfaces and items
- Provide personal protective equipment. Employers must clean, repair and replace this equipment as needed. Equipment includes gloves, gowns, eye

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REGIONAL SERVICE CENTER SPOTLIGHT



Each quarter, one of our regional service centers is featured in "Regional Spotlight." In this issue, we share information on the Avera McKennan Hospital & University Health Center Regional Laboratory.

A New Histocompatibility Laboratory

Avera McKennan is in the process of developing the first Histocompatibility Laboratory in the state of South Dakota. With very active solid organ and peripheral blood stem cell transplant programs, Avera McKennan is taking the next logical step, which is developing a Histocompatibility Laboratory. Histocompatibility is the measure of how similar the genes are that control the immune system across individuals. With the arrival of Dr. Jacquie Choate, a transfusion medicine fellow joining the Physicians Laboratory Ltd., we are ready to begin this process at the onset of the new fiscal year in July 2011. Members of the staff have already begun training in this new discipline, and Dr. Choate, together with Technical Director Consultant Martin Oaks, PhD, will be leading this new endeavor. This is a very exciting and challenging undertaking for the lab.

Introducing bioMerieux MYLA Software

Avera McKennan Laboratory has agreed to become a "limited launch site" for the new MYLA software system that ties all of the bioMerieux microbiology products in a very productive and comprehensive manner. It not only reduces the number of instrument interfaces (akin to a "middleware" product), but also allows for remote monitoring of the bioMerieux systems in a pre-emptive manner through its VILINK product. MYLA helps with

instrument connectivity and data consolidation while helping to manage the microbiology workflow processes and information flow to the LIS. This will further improve our microbiology quality.

Flow Cytometry Begins to Simplify Orders

In an effort to simplify ordering, the Flow Cytometry section has streamlined the test offerings and panels. This was the subject of a Client Alert that was released in May 2011. Please refer to the Client Alert for specifics.

Avera McKennan Makes Supervisory Staff Changes

Mike King, MLS(ASCP), long-time Phlebotomy and Point of Care supervisor, is taking on new challenges as a systems analyst with the Avera Information Technology Department. Replacing Mike as Phlebotomy supervisor will be Matt Lauterbach (formerly evening supervisor in Lab Operations). Kacy Salter replaced Matt as the evening/nights supervisor in Operations and assumed her new role June 6, 2011.

Avera McKennan Hospital & University Health Center Regional Laboratory

CENTER STAGE

Congratulations to the 2011 – 2012 ASCLS Officers and Board Members from Avera
ASCLS-SD 2011 – 12 Officers and Board of Directors
President: Lezlee Koch
Second Vice President: Shirley Heber
Board Member at Large (two open positions): Carmelle Miller and Rhani Resuello

Congratulations to the Avera winners of the ASCLS-SD 2011 Awards

Member of the Year: Lori Murray
Keys to the Future: Tanya Crockett, Patrick Bezenek
State Omicron Sigma Winners: Lezlee Koch, Shirley Heber, Rhani Resuello, Rebecca Aman
Regional Omicron Sigma Winners: Michelle Friesen
State Professional Recognition Awards: Patrick Bezenek, Daniel Rislov, Angie Petrik, Susan Lopez, Patrick McMahon, Ardith Petersen

OSHA'S BLOODBORNE PATHOGENS STANDARD

Continued from page 1

- protection and masks. Provision, maintenance, repair and replacement are at no cost to employees.
- Make available hepatitis B vaccinations to all workers with occupational exposure. This vaccination must be offered after the employee has received the required bloodborne pathogens training and within 10 days of initial assignment to a job with occupational exposure.
 - Make available post-exposure evaluation and follow-up to any occupationally exposed employee who experiences an exposure incident. An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials. This evaluation and follow-up must be at no cost to the employee and includes documenting the route(s) of exposure and the circumstances under which the exposure incident occurred; identifying and testing the source individual for HBV and HIV infectivity, if the source individual consents or the law does not require consent; collecting and testing the exposed employee's blood, if the employee consents; offering post-exposure prophylaxis;

- offering counseling; and evaluating reported illnesses. The health care professional will provide a limited written opinion to the employer and all diagnoses must remain confidential.
- Use labels and signs to communicate hazards. Warning labels must be affixed to containers of regulated waste; containers of contaminated reusable sharps; refrigerators and freezers containing blood or OPIM; other containers used to store, transport or ship blood and OPIM; contaminated equipment that is being shipped or serviced; and bags or containers of contaminated laundry, except as provided in the standard. Facilities may use red bags or red containers instead of labels. In HIV and HBV research laboratories and production facilities, signs must be posted at all access doors when OPIM or infected animals are present in the work area or containment module.
- Provide information and training to staff. Employers must ensure that their workers receive regular training that covers all elements of the standard including, but not limited to: information on bloodborne pathogens and diseases, methods used to control occupational exposure, hepatitis

- B vaccination and medical evaluation, and post-exposure follow-up procedures. Employers must offer this training on initial assignments, at least annually thereafter, and when new or modified tasks or procedures affect an employee's occupational exposure. Also, HIV and HBV laboratory and production facility staff must receive specialized initial training, in addition to the training provided to all staff with occupational exposure. Employees must have the opportunity to ask the trainer questions. Also, training must be presented at an educational level and in a language that the staff understands.
- Maintain workers medical and training records. The employer also must maintain a sharps injury log, unless it is exempt under Part 1904 – Recording and Reporting Occupational Injuries and Illnesses, in Title 29 of the Code of Federal Regulations.

Additional Information

For more information, go to OSHA's Bloodborne Pathogens and Needlestick Prevention Safety and Health Topics webpage at: www.oshs.gov/SLTC/bloodbornepathogens/index.html.

SAVE THE DATES!

ASCLS Region V Fall Symposium — Oct. 13 – 14, 2011, Fargo, N.D.

ASCLS-SD & CLMA Fall Collaborative Conference — Nov. 3 – 4, 2011, Mitchell, S.D.