

# Society of U. S. Naval Flight Surgeons



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## NEWSLETTER

VOL. IV, NO. 3

1 October 1980

### -PRESIDENT'S COMMENTS-

This Society has a golden opportunity to become the voice of our community. There are institutional problems that remain unsolved because of the lack of such a voice.

It is my intention to alter our course and turn into the wind by using the SUSNFS as a vehicle to highlight some of these problems. Those of you who were present at our 1980 Anaheim conclave will recall that CAPT Wayne O. Buck, MC, USNR-R requested Society assistance in improving the lot of our USN R-R brethren, whose two week tour of active duty may not serve as the training ground for mobilization that it should. Another problem, yet unquantified is the matter of job satisfaction for the Naval Aviator/Naval Flight Surgeon dual designator, an arena currently being explored through the attached letter to our dual designators as a first cut at evaluating if a problem exists.

Does this represent a politicization of our Society? I think so, but I think so only in as much as we attend to U.S. Navy business to be dealt with via U.S. Navy contacts. It is not my intention to get into questions of national policy or even broad aviation topics. I see us as a collective spokesman, in-house, on our own behalf. Thus, my goal would be to have the membership duly notified about proposed resolutions in accordance with our by laws and constitution, to be voted on at our annual meeting, for forwarding to that person or institution most likely to be able to effect a change. That I risk turning some members off I will underwrite, confident that our Society can at least become a forum for exploitation according to the will of the majority. It is fine to be a social brotherhood; I think SUSNFS can be more than that, even if every proposed resolution goes down in resounding defeat.

In the matter of our USNR-R Flight Surgeons, I am pleased to report to you that under the leadership of Wayne Buck (bolstered by strong moral support from this USN type and numerous USNR-R types on the West Coast), the problem of premobilization training for our Reservists is already tracking towards resolution. The existence of this Society, please note, offered the forum wherein the problem was able to be verbalized and an approach started on the solution. I see that this is a mission worthy of SUSNFS over and above the educational one carried on CAPT Charlie Bercier's broad shoulders, and the administrative one institutionally resident at NAMI in the capable hands of CAPT Paul Caudill.

I perceive a defect in our structure that needs your attention and that will come up at our next meeting for remedy. The problem is corporate memory. Our past presidents represent the cornerstone of invented wheels that risk re-invention. It is my intention to request an amendment to our constitution to seat past presidents (either the last two or the last three) on our Board of Governors, and to propose also, either the creation of an office of President-elect or to have the Vice President automatically fleet up to the Presidency. I have seen this mechanism work to the advantage of the Aerospace Medical Association, among others, and believe it would be correct for us to go the same route.

Our Society has untapped potential. I stand ready as your 1980 president to chart an activist course for the betterment

of the Naval Flight Surgeon community. If you have ideas about where SUSNFS can be a helpful lever, write me or call me and we can explore it. We have a voice. Let it be heard. Your assistance is respectfully solicited to insure that the Naval Flight Surgeon community is united in membership in SUSNFS, better to effect that the voice speaks on behalf of all. If you are not now a paid-up member, quickly fix the oversight before your good intentions get buried with the next ring of your busy telephone. Your \$5.00 dues are, of course, tax deductible, and come next April 15th, you will be glad you paid.

Professionally yours,  
FRANK E. DULLY, JR.

### -EDITORIAL POLICY-

The views expressed herein are those of the individual authors and not necessarily those of the Society of U.S. Naval Flight Surgeons.

This newsletter is published quarterly by the Society on the first day of January, April, July, and October. Material for publication is solicited from the membership and should be typed double space, reaching the Editor at least one month prior to the scheduled date of publication. Unsigned materia! will not be considered.

Correspondence should be addressed to:

CAPT C. H. Bercier, Jr., MC, USN - Editor, SUSNFS Newsletter  
Naval Aerospace Medical Institute, Code 10  
NAS, Pensacola, FL 32508

\*CHANGE OF ADDRESS NOTICES should be sent to:  
CAPT Bill Houk, MC, USN - Secretary, SUSNFS  
C.O., N.A.M.R.L. - NAS, Pensacola, FL 32508

### -EDITORIAL-

\*There are a lot of Frank Dully's tracks throughout this issue. Surely he's not the only one out there who can write. ... is he. ...? Frank has loaned me his set of lapel-sized Naval Flight Surgeon wings (wingspan 1") and I have had a die made, for copy purposes in 14kt gold. The acorn can be represented by a diamond chip or a silver one. The cost will be approximately \$60.00. It is possible that, if enough people are interested, the price may come down. Again, I need some feedback so as to nail down the cost figure. Keep those cards and letters coming.

\* Any Flight Surgeon out there who has yet to attend the Medical Effects of Nuclear Weapons course at the Armed Forces Radiobiology Research Institute in Bethesda has, so far, missed one of the last of the good deals. Good deals, in that (a) it's "free" -AFRRRI funds all attendees for travel and per diem for the 5 days. And (b), the curriculum is highly relevant to our operational support role and is presented in a thoroughly professional manner by the tri-service staff. Apply ASAP to BUMED Code MED-21 (CAPT Bodenbender) for the next available slot. It is well worth your valuable time.

### -E.N.T.-

Just how much of a problem are allergies, radiologic sinusitis and other rhinitis in the operational forces? This is a frequent question posed to NAMI and the physical standards branch of BUMED from BUPERS, Marine Corp Headquarters and Congressional inquiries. No hard data is available. but as

NAM I prepares to hook into a computer, we are looking for this data from the fleet. Can you help us? As a start toward a meaningful data input, the Commanding Officer and I would like to request from the operational Flight Surgeon a summary of the numbers and types involved, of the problems mentioned above. This might well be done as an annual review of the health records by the AVT's or other medical secretarial personnel. We would greatly appreciate any data and your personal comments on these problems.

Occasionally one of our aviators will develop serious chronic sinus disease and we wish to do everything to keep him flying. Maxillary sinus disease may require surgery which is often effective and easily accomplished with possible ventilation holes or windows, but the frontal sinus disease and surgery is another matter. The surgical treatment is a major procedure usually resulting in obliteration of the cavity with fat or synthetic substance after complete removal or destruction of the mucosal lining. How can we be sure an air pocket is not still present or the blocked ostia will not open in the future? Some of my colleagues think the medical LPC run is not only required but is the final answer to these patients after surgery. I do not! Recently I heard of one case in which a pilot was subjected to the potential dangers of the chamber only 17 days after major frontal sinus surgery nearly equal to a craniotomy. Other cases of maxillary surgery were judged cured with an LPC run three weeks after surgery. At three weeks, the antral windows are nearly always still open and it may take months before they close. After frontal surgery with all the lining stripped out and all the nerves removed, one would not expect the patient to experience any pain; these people need good healing time and then controlled trials of flight for several months with x-ray follow-up at six months.

The best judge of success is an asymptomatic patient both on the ground and in the air, who is closely monitored by his flight surgeon, and who is treated vigorously and adequately, when required, to prevent recurrence or complications of his disease.

CAPT E. J. Sacks, MC, USN

From: The Society President

To: Dual-Designator Naval Aviator/Naval Flight Surgeons

Dear Doctor:

I am considering the possible utility of our Society in speaking as one voice for our aeromedical community in professional matters where we have historically been unable to impact our own bureaucracy. One area of concern has to do with the limited professional satisfaction available to some of our dual-designator Naval Aviator/Naval Flight Surgeon brethren. I am aware that some of the billets offer all the satisfaction one could want, but others place the incumbent so far down into a system that the problems they are charged with identifying cannot be fixed because the production process has gone too far. To complicate this, there is a perception that the incumbent in such a billet must merely endure this hardship because there is no institutional way to make "the system" more responsive.

I have had first hand contact with two such dual designators in recent months; it seems likely there may be others; it occurs to me that maybe the Society can help. Before I stick our corporate necks out I need input from as many members of the dual designator community as is possible.

Understand, I have no axe to grind. I have, rather, a tool that can be useful to assist in effecting change by highlighting the existence of a problem and hopefully stimulate corrective action responsive to YOUR needs. Our USNR-R brethren who have a problem also fitting this description are already well on the way to finding solutions to their own problems because of the existence of our Society, functioning as a cross-fertilization opportunity. I hereby offer the same option to your community.

If a consensus from your community can be obtained, I would intend to notify the entire membership at least two months before the annual meeting of a proposed resolution reciting the problem and recommending appropriate corrective action. To this end, I need your opinion, and I need volunteers to be Chairman and members of an AdHoc Committee to bring

the matter to crystallization using dual-designator community input. Sufficient time remains if you move on it now.

Sincerely,

FRANK E. DULLY, JR., President

#### -FIELD NAVAL AVIATOR EVALUATION BOARD-

The BUPERS Manual makes provision for evaluating the continued Career potential for aviators (and NFO's) where there is reasonable cause to formally examine this point. By regulation, a flight surgeon is a member of this Board. The written report of the Board's proceedings, conclusions, and recommendations is forwarded up the chain for endorsement by assorted heavies. Yours truly is the aeromedical member of the Type Commander review board, and speaking in this capacity, need to be very frank. My problem is this: the input of the flight surgeon to the FNEAB's that I have been in on is usually not helpful. I know he was there because he signed the final report. I also know that a different flight surgeon performed the evaluation for the Board (one man cannot both evaluate for the Board and then also be a member of the Board), because there commonly is a one-liner enclosure saying "PQ & AA SG I.", signed by the evaluator. Almost never is there any amplifying information about the man, even when his problem is supposed to be clearly in the purview of the flight surgeon. What ever happened to the NAM I training that taught members of our community how to evaluate an aviator? I must infer (rightly or wrongly) that such information was presented to the FNAEB, but my problem is that the record fails to show other than "PQ & AA SG I", even when the incident that precipitated the Board is laced with human frailties. As those Board reports proceed uphill in the review process, distortions occur and the context of the issue may be lost, with the bottom line being that the aviator of NFO does not get a fair shake. I am appalled at how some FNAEB's miss the mark because the voice of the flight surgeon was never recorded. Reviewers are left to deal with an incident in isolation, and in more than one case, are forced to again plow ground that actually has been covered but is not in the record, and that had it been there, could have precluded an injustice that becomes a runaway locomotive on somebody else's railroad. Yes, I can stop it here at AIRPAC, and have done so, but it surely makes the flight surgeon member of the FNAEB look like a dummy. May I suggest that a written report of the flight surgeon's evaluation be made a part of the FNAEB, and that it tell BUPERS (who have final action authority) something about the man; such as:

- age, family constellation, marital status
- aviation background, study habits
- past successes and failures
- illnesses, medications, social problems
- life style, role of alcohol/drugs
- major life changes of the last 6-12 months
- coping mechanisms, effectiveness under stress
- attitude, motivation
- continuity of training (delays, interruptions, groundings)
- peer relationships, hobbies
- your impressions of THE MAN
- MANMED qualifications

The real problem as I have seen it first hand is that in the absence of this information, an aviator who has bent, broken, or lost an airplane is at risk of losing his wings. If the incident or accident, or the pattern of his professionalism, falls into one of the three categories listed below, so be it. If it is in the fourth category, you should stand up to be counted that yanking the man's wings is inappropriate, and that you go on record, in writing, as opposing any such action.

#### FACTORS APPROPRIATE TO DESIGNATOR CHANGE F.N.A.E.B. ACTION

1. Deficient motor skills
2. Pattern of defective judgement making
3. Accountability problems

The fourth factor that you should tease out and handle separately, and for which designator change is, in my judgement, completely inappropriate, is

AN HONEST MISTAKE

No useful purpose, within the realm of aviation safety, is served by punishing for a mistake, but I see exactly this happening.

Let me give some examples:

a. The fighter pilot who briefs a hop with a 500 foot minimum altitude but who decides during flight to "add realism" and perform his intercept at 50 feet, has an accountability problem. When the \$21 million national asset that he has been entrusted collides with a telephone pole because he was busy trying to locate his adversary, I define his shortcoming as defective accountability and have no heartburn with a FNAEB that wants his wings. Our aggressive aviators walk a delicate tight-rope in peacetime that is a compromise between competitiveness and safety, and this specifically addresses accountability.

b. The aviator for whom FCLP, CQ, or ops around the boat overtax his motor ability is an accident waiting to happen by virtue of flawed motor skill capability, and is in the wrong business. Period.

c. The aviator who, in effect, issues himself a private waiver of the requirements to remain within a defined safety envelope such as an AV-8 pilot who ignores hover limitations and overspeeds the engine to save himself, or the over-water plane commander who sets himself above the requirement for water survival gear availability for all those on board, or a helo pilot who deliberately plans a flight that will require absolute precision and no surprises to just reach his destination with the last drop of available fuel - these are judgement problems. But, the mere fact of a loss of an aircraft need not be any of these. Good aviators also make honest mistakes. If we hammer one who does, we underwrite others hiding mistakes from which all can learn lest they, too, be punished for an error. A ramp strike in an A-7 on a black night, for instance, could end up being any of the above four factors. The fact that the bird was destroyed cannot be automatically equated to any of the four, but if it turns out that it was a simple, honest mistake, then I place that into the category of "The Breaks of Naval Air," and no further action is required once it has been established.

CAPT F. E. DULLY, MC, USN

### -PSYCHIATRY-

The new Diagnostic and Statistical Manual - III of the American Psychiatry Association has been out for several months now. Use of the new nomenclature commenced officially 1 July 1980. When making diagnosis you should now use this terminology.

There are several advantages to the new system, an perhaps at least one disadvantage:

It offers a "Multiaxial" approach to diagnosing mental disorders. You can establish more than one diagnosis - in the order of their importance. Using five "axes" you can diagnose, for example, a neurosis, an underlying personality disorder (or even just traits), a physical disease, and note the severity of the precipitating stressor, and the patient's premorbid level of adjustment and performance socially and occupationally for the year preceding the onset of his illness. All of this on the same patient. This offers a level of sophistication and understanding not available with the old DSM II.

There are a number of other advantages too: usually greater specificity of diagnosis, and well-defined criteria for establishing them.

The disadvantage: psychophysiologic disorders are missing. They are now: "Psychological Factors Affecting Physical Conditions". Perhaps a bow in the direction of organic etiology rather than functional for these conditions.

For your copy of the "Quick Reference to the Diagnostic Criteria from DSM-III" write to:

Publication Sales - American Psychiatric Association  
1700 18th Street, NW, Washington, DC 20009

"Try it; you'll like it!" CAPT P. F. O'Connell, MC, USN

### -INTERNAL MEDICINE-

No input.

### -OPHTHALMOLOGY-

No input.

### -NAMI NOTES-

\* Student Flight Surgeon Class 80-2 graduated 19 August 1980 with a "first": The Surgeon General's Award went to LTjg H. John Gerhard, USN. John completed the Academic and Flight portions of the curriculum during selective time prior to commencing his final year at Harvard Medical School. We all look forward to his return to active naval service.

### "TWO BLOCK FOX" - DETACHMENT ROSTER, CLASS 80-2

LT Thomas Gordon Anderson, Jr.,  
MC, USNR  
Commander, Training Air Wing Six  
NAS, Pensacola, FL 32508

LT David G. McGowan, MC USNR  
Commander,  
Carrier Air Wing SEVEN  
NAS, Oceana, VA

LT George W. Atwell, MC, USN  
Naval Aerospace Medical Inst.  
(Undersea)  
NAS, Pensacola, FL 32508

LT James R. Patterson, MC, USNR  
Commanding Officer,  
Marine Aircraft Grp. TWENTY-SIX  
New River, NC 28545

LT Joseph B. Cofer, MC, USNR  
Commander  
Carrier Air Wing FIFTEEN  
NAS, Lemoore, CA 96602

LT James H. Rudrick, MC, USNR  
Commanding Officer  
U.S. Naval Hospital, Rota, Spain

\* Other NAMI personnel changes:

- CAPT Mike Harris has reported aboard as CAPT Rob Deane's relief in Psychiatry.
- CAPT Clyde McAllister has successfully negotiated his Aerospace Medicine Boards and is my new associate for Medical Corps Programs.

### -NAMI PATCHES-

If you are a patch collector or if you want a NAMI patch for your flight jacket, you can get one now. A special run of NAMI patches has been obtained, carrying the official NAMI emblem in official colors. The cost, including mailing to the address of your choosing, is four dollars apiece. The quantity available is limited, so if you want one, please send a check made out to R. P. Caudill, Jr., and identified for "number of NAMI patches" at four dollars each. Any change after mailing will be used to defray the cost to Commander Bob Hain, who bankrolled the art costs, and to the patch fund for future endeavors.

### -NAMI PLAQUES-

NAMI plaques are also available at a cost of twenty dollars plus postage. They are enameled metal on walnut backboard, and look good. High cost tied to artwork, and enameled metal seal. Now is your chance. Supply of this one-time purchase is shrinking. Order now, through NAMI.

### -CME QUIZ-

During the recent WESTPAC Fleet ASW exercise, "TUBEX" one of the crews in the P-3C Det. was tasked with transporting an expended practice shot MK 46 torpedo from Rimrock Atoll to NAS Greensleeves Island. Upon returning and unloading the fish, a significant amount of reddish fluid was noted in the bomb bay area by ADJAN Goodwrench.

Assuming it was a hydraulic spill, he wiped it up with the rag in his flight suit as he had previously seen some of the older fellows do. In spite of his pounding headache and slight dizziness when standing up quickly (after all, he had eaten no breakfast), he resumed his share of the task of securing the A/C.

Finding themselves with a free afternoon, several of the crew elected to rent a boat and appropriate gear in order to try their hand at snorkeling and spearfishing on a nearby coral reef. Fighting off his headache and occasional dizziness, Goodwrench elected to go along rather than miss enjoying such a clear, sunny tropical day.

The crew enjoyed good hunting and, shortly, Goodwrench added yet another 6 pound mahi-mahi to the growing pile on the bottom of the boat, his headache and dizziness long forgotten. At one point HM2 Gramstain suggested putting their catch into the ice chest but was soundly overruled by his shipmates who felt that their generous supply of San Miguel had far more need of refrigeration than their catch.

Rather pleased with themselves, the crew returned some 6 hours later, under a spectacular tropical sunset, with plans to charcoal broil fillets of their fish and invite all the rest of their crew - even the officers. The recreation area had just been sprayed for mosquitos, so a pleasant evening was anticipated.

After a merry feast, at which each of the 13 crewmen had eaten his fill of broiled fish, melted butter, and potato salad, the PPC, LCDR Propfeather bid his crew goodnight at 2200 with a gentle reminder to turn in soon, so as to make their 0800 launch time for an assigned ASW sector search.

Some two hours later, as he was drinking some Alka Seltzer because of a vague feeling of nausea and mild epigastric distress, the PPC was informed by phone that seven of his crewmen were in the local Emergency Room, apparently drunk. Two were being admitted for IV fluid replacement, one of whom seemed to also be having an asthmatic attack.

Upon arrival at the Emergency Room LCDR Propfeather was wondering how he was going to explain the probable mission abort, following an evening of fish and beer, to his CO. He thought it odd, however, that none of his crew appeared intoxicated when he left them at 2200. Drinking to such a degree was definitely not their usual behavior pattern.

The duty Flight Surgeon, L T Sierra Hotel, had just started an IV on one of the crewmen slated for admission. He introduced himself to the PPC and admitted that he suspected something more was amiss than excessive beer consumption, his initial impression.

For one thing, the man with the apparent asthmatic attack had no prior history of that illness. His acute bronchospasm had responded to IV Aminophylline and hydration, but residual expiratory wheezes were still present. Secondly, while G I distress with vomiting and diarrhea was the group's common complaint, five of the group exhibited a generalized cutaneous erythema with many pruritic, urticarial lesions, blurred vision, circumoral parathesias, and headache. As Dr. Hotel continued to question the group about the day's activities ADJAN Goodwrench recalled his a.m. headache and dizziness while wiping up the "hydraulic fluid." Simultaneously L T Hotel and LCDR Propfeather keyed upon this event and exclaimed "Otto Fuel"! "That's it" said the PPC, recalling a safety lecture by his Flight Surgeon back at NAS Stateside relative to Otto Fuel toxicity. "See Doc, this stuff makes your vessels open up which then drops your blood pressure, causing dizziness, and stretches the brain coverings, causing headache."

"True enough," replied Hotel, knowing more than most about the physiologic effects of propylene glycol dinitrate. "However the timing is all wrong; the exposure occurred this morning and the effects should long since have passed. Then, too, is the 100% incidence of vomiting and diarrhea, definitely not Otto Fuel effects. And the skin flushing, urticaria. ...it's as if the parasympathetic nervous system had run amok. ...as with organophosphate. ...or histamine. ..."

"Histamine," exclaimed Hotel, as he made for the cabinet of injectable drugs in order to begin a therapeutic trial of Benadryl, upon the still vomiting, pruritic, thoroughly miserable aircrew.

Within a short time of parental Benadryl administration to two of the crew, marked improvement was noted; nausea and vomiting had ceased and the urticaria had rapidly cleared. The rest were then similarly treated.

"The Benadryl response really clinched it" said Hotel to the PPC. "Your people's mistake was failing to refrigerate their fish. This allowed bacterial growth which produces a toxin containing histamine."

"But the fish was properly cooked" replied LCDR Propfeather, a somewhat compulsive, clean living, third tour P-3 driver.

"Makes no difference," replied Hotel. "The toxin is heat stable."

"So refrigerating the catch will prevent the problem in the first place?"

"Not in all cases," replied the Flight Surgeon, on his way to the coffee pot. "There are actually two major forms of vertebrate fish poisoning. Your people have apparently got one called scombroid, in which *Proteus morganii* bacteria multiply in the dead fish tissues, forming the heat stable, histamine containing toxin. Scombroid fish include tuna, mackerel, bonito, and skipjack; although mahi-mahi also may be affected. The symptoms produced are those of a severe, generalized allergic reaction plus the "G.I. flux." On the other hand, however, there is a more common form called ciguatera poisoning, affecting large bottom feeders like snapper, grouper, etc., who acquire a heat stable toxin in their food chain originating with a dinoflagellate. Since this toxin is on board the living fish, prompt refrigeration in this case offers no protection. The fish itself is healthy and unaffected."

"So the only way to avoid ciguatera poisoning is. ..."

"Right", replied Hotel: "Eat hotdogs instead."

\* \* \*

Since much of the Naval Aviation community is into water sports, vertebrate fish poisoning is a problem we may encounter. Ciguatoxic poisoning, by far the more common, is the more severe; case fatality ratios of up to 12% have been reported. Ciguatoxin has some cholinesterase inhibiting property, but its poorly understood activity is not limited to this. Its incubation period is 1-6 hours and its duration is days -weeks. No specific treatment is available.

Scombrototoxic poisoning is self limiting. A shorter incubation of minutes - 1 hour and a duration of several hours is the rule. Extra -G.I. symptoms include pruritic urticaria, bronchospasm, and burning/blistering of the mouth. Antihistaminics are effective.

The common denominator to both forms is an explosive G.I. syndrome "in both directions".

ANSWERS: 1. C 2. C 3. B 4. E 5. D

1. Morbidity & Mortality Weekly Report, C.D.C., Vol. 29, No.9, 7 Mar. 80.
2. Ibid., Vol. 27, No.5, 3 Feb 80.
3. New England Journal of Medicine, Vol. 295, No. 20, 11 Nov. 76.

#### -ACKNOWLEDGEMENT OF MEMBERSHIP-

Please note the changed form of the address-label. The date shown, such as "April 81", indicates the month through which your membership in the Society is paid. If you have questions, please notify the Society "Business Manager", CAPT Paul Caudill, Commanding Officer, Naval Aerospace Medical Institute, NAS Pensacola, FL 32508.

In the future, your address label will be your indication of receipt of dues and currency of membership. For the next couple of issues, former members with dues in arrears will continue to receive the newsletter, but after 1 July 1981, only paid up members will be retained on the Society mailing list. Membership requests and dues may be mailed to:

Society of U.S. Naval Flight Surgeons  
c/o Commanding Officer  
Naval Aerospace Medical Institute  
NAS, Pensacola, FL 32508

1. Dr. Hotel, keying upon a Histamine related etiology, is apparently now considering
  - a. delayed degradation of propylene glycol dinitrate as a result of alcohol ingestion.
  - b. organophosphate poisoning
  - c. fish poisoning
  - d. excessive beer consumption potentiated by sunburn
  - e. staphylococcal food poisoning
2. The most likely source of staphylococcal food poisoning at this meal would have been
 

a. fish	b. butter
c. potato salad	d. beer
e. contaminated eating utensils	
3. The group most frequently responsible for insecticide poisoning is the class of
 

a. carbamates	b. organophosphates
c. chlorinated aromatic hydrocarbons	
d. nitrophenols	e. botanical derivatives
4. Fish poisoning can be prevented by
  - a. proper cooking
  - b. avoiding the ingestion of visceral tissues
  - c. avoiding large, listless fish which are easily speared
  - d. discarding all dark meat fish
  - e. eating pork
5. The most common foodborne illness due to a chemical toxin reported to CDC is
 

a. botulism	b. staphylococcal
c. insecticide contamination	d. fish poisoning
e. shellfish poisoning	