2001 article by Schwartz and colleagues found no association between tibia lead levels and test scores. With regard to Seебer and Meyer-Baron’s statements that “the repeated information on cross-sectional studies should also be accepted as source for conclusions on (neurobehavioural) effect due to exposures” and that “meta-analyses are one approach to search such summarising information”, after having reviewed the results of five meta-analyses on the subject (two presented in the recent article by Seебer and colleagues, our paper, and the two additional re-analyses discussed here), we found five different sets of results with no evidence of consistency to qualify these results as “repeated”. Therefore, we have to adhere to our original conclusions.

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References

Ambient neighbourhood noise and children’s mental health

Readers may be interested to know that there are other studies that have provided equivocal evidence concerning the effects of environmental noise on children’s mental health that have not been cited in the article by Lercher et al., published in the June 2002 issue of Occupational and Environmental Medicine. These new results need to be considered in the light of fact there has not been clear research evidence to support or dispute whether noise exposure in linked to mental health problems in children.

We have found inconsistent mental health results in our three recent studies examining the impact of aircraft noise on child health around Heathrow airport.1–3 In the West London Schools Study,1 aircraft noise was weakly associated with hyperactivity and psychological morbidity as measured by the Strengths and Difficulties Questionnaire (SDQ) completed by parents. The SDQ is one of the most widely used psychologically valid instruments to detect psychological morbidity in children in both the UK and internationally. However, in our other two studies using both the parent completed SDQ, the teacher completed Student Behaviour Checklist and child self reported Depression (Child Depression Inventory, CDI) and Anxiety (Revised Child Manifest Anxiety Scale) we did not find any association between mental ill health and aircraft noise exposure.1–3

The Austrian results should be placed within the context of existing studies with respect to two points: (1) the construct being measured in the Austrian study; and (2) the small effect size and inconsistency with previous research. In the Heathrow studies we used internationally recognised child mental health screening tools, that have equivalent psycho-metric properties to those only used in German speaking countries). It is worth noting that the KINDL is normally defined as a “valid and reliable index of quality of life”, rather than a sensitive screening tool to detect specific mental health problems. It is possible that the mental health results reported by Lercher and colleagues are tapping into impaired quality of life and wellbeing rather than a precise mental health outcome such as “depression”. The definition of “mental health” used by the authors needs to be clarified. The fact that the Austrian results do not replicate our Heathrow results raises the question: Does the KINDL measure wellbeing and quality of life rather than mental health? Furthermore, teacher reports of classroom adjustment would not normally be classified as a “mental health” problem. It might be more accurate to conclude from the Austrian research that: “ambient levels of noise in the community are associated with decreased quality of life and poorer classroom behaviour (rather than “mental health”) in elementary school children”.

In summary, we feel that new research is necessary to provide further evidence on the effects of noise on child mental health. Even though Lercher and colleagues have taken the field of research forward with their two stage study design strategy, there is still more work to be done to clarify the terminology and measurement of mental health in the field of non-audit noise effects of noise. Specifically, a clear definition and operational distinction needs to be made between stress/wellbeing/quality of life and mental health. M. Haines, S. Stansfeld
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some kind of adaptation might have occurred. This study was supported by Shiraz University

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William Harvey and air pollution
Thomas Parr died, on 14 November 1635, at
what was recorded as the advanced age of 152 years and 9 months. A postmortem examina-
tion was performed and a record made by
William Harvey. A translation by Alan Muir-
hed of Harvey’s account is included in the
Everyman edition of De Motu Cordis. 1 Parr
seemed remarkably well preserved, and when
considering the cause of death, Harvey identi-
ﬁed air pollution as a possible contributory
factor. His words are worth reading:
“It was consistent to attribute the cause of
carcinosis to a sudden adoption of a mode of
living unnatural to him. [Parr had been
brought to London not long before he died by
Lord Arundel.] Especially did he suffer
harm from the change of air, for all his life
he had enjoyed absolutely clean, rareﬁed,
coolish, and circulating air, and therefore
his diaphragm and lungs could be inﬂated
and deﬂated and refreshed more freely.
But life in London in particular lacks this
advantage—the more so because it is full
of the ﬁfth of men, animals, sewers, and
other forms of squalor, in addition to which
there is the not inconsiderable grime from
the smoke of sulphurous coal constantly
used as fuel for fires. The air in London
therefore is always heavy, and in autumn
particularly so, especially to a man coming
from the sunny and healthy districts of
Shropshire, and it could not but be particu-
larly harmful to one who was now an
enfeebled old man. 2

Harvey went on to point to the possible adverse effects of changing from a simple diet
to a rich one. Harvey’s observation on the pos-
sible effects of air pollution are interesting in
that they antedate Evelyn’s much better
known analysis by 26 years. In retrospect we
can see that Harvey identiﬁed the effects of
short term exposure to high levels of air
pollution on a vulnerable person.

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Alternative methods of administering amyl nitrite to victims of cyanide poisoning

The traditional method of administering amyl
nitrite to a victim of cyanide poisoning, is to
break an ampoule in a handkerchief and then
intermittently hold this under the victim’s
nose. 1 2

I would like to suggest two alternative
methods for administering amyl nitrite. The
ﬁrst method is to use a nebuliser. The second
method is to use an inhaler similar to the
Pentrox device, normally used to administer
methoxyﬂurane for emergency analgesia.

With appropriate training, either method
could be used by ﬁrst aid staff. This could be
of particular value to remote mine sites where
the absence of medical staff may preclude
intravenous administration of cyanide anti-
dotes such as dicobalt edetate, sodium thio-
sulphate, sodium nitrite, or hydroxocobal-
im.

Both methods offer the following advan-
tages over the traditional method:
• Oxygen can be administered during treat-
ment
• Rapid delivery of the drug
• Accurate dose delivery
• Less risk of inhalation by ﬁrst aid or medi-
cal staff
• Less risk of injury due to glass fragments.

The inhaler device would also be particu-
larly well suited to the treatment of large
numbers of victims following industrial disas-
ter or terrorist attack—the risk of which has
been recently alluded to. 1

One concern about introducing these meth-
ods is the potential for amyl nitrite toxicity.
Experimental research is recommended to
determine safe dosages and frequencies for
each method.

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improved public health readiness for cyanide

BOOK REVIEWS

Basic Statistics and
Epidemiology, A Practical Guide
85775 589 8

This book is “aimed at people who want
to understand the main points, with minimum
fuss”—no small task when the subject at
hand is statistics! However, this book manages
it by using short, concise, easy to read
chapters that contain simple examples and
a minimum of mathematics. The style is suit-
able both as a text to read from start to finish
and as a reference book. It introduces
students to the basic terms and concepts in
statistics and epidemiology and provides a
very basic “walk through” of some simple for-
mulae.

The book is loosely divided into two parts. It
begins with a brief description of what are
statistics, their role in the study of populations,
and ways in which samples can be drawn
from populations in order to make statements
about individuals in the population. Concepts
such as probability, signiﬁcance testing, and
standard errors are introduced and explained
before a very brief mention of some simple
statistical tests. In these later chapters insufﬁ-
cient information is provided to allow the
reader to understand the mechanism of these
tests, or the conditions required for their
application. However, useful references are
given where the reader may ﬁnd further details.

In the second “half” of the book the author
covers basic epidemiological concepts, de-
scribing the difference between prevalence
and incidence, and how to measure disease
frequency, and discussing bias and confound-
ing. Later chapters in this book include
basic study designs such as cohort, case-
control, and randomised clinical trial (or
RCT), and describe the planning and use of
questionnaires.

The book provides a useful glossary of
terms, including mathematical symbols and
a number of statistical tables. A set of exercises
is given and answers are provided. These
are invaluable addition to the book.

For the non-mathematical health student
faced with the daunting prospect of having to
begin studying statistics, this 150 page book is
an excellent primer. It introduces basic terms
and concepts and gets the student started.
However, statistical concepts can be difﬁcult
to understand, and in some chapters in this
book the brief introduction given falls short of
helping the student understand the concepts
properly. Therefore the interested student
may see this book as a ﬁrst introductory text,
shortly to be followed or indeed accompanied
by a more full statistical or epidemiological
textbook. For this purpose, an excellent,
current bibliography is provided.

R Atkinson

Occupational Disorders of the
Lung: Recognition, Management
and Prevention

David J Hendrick, P Sherwood Burge, William
S Beckett, Andrew Chung (pp 638; £99.99)
2507 0

The authors of this book aim to draw
attention to “the changing nature of the con-
tribution the occupational environment
makes to lung disease, and to the particular
difficulties this poses for those who ﬁnd
themselves responsible for patient care or
the management of relevant industries”. The
result is a book which is easy to read, helped
greatly by use of a standard format for each
chapter. The format includes management
of both the individual and the workforce, and
prevention. The authors have also used difﬁcult or “grey” cases, similar to one other
in the ﬁeld. The difference here is