



Asthma in the 21st Century

Dr David Jackson

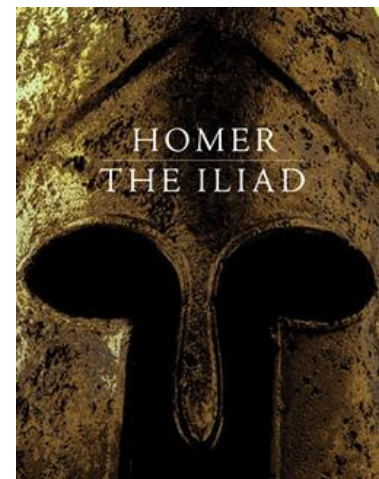
Consultant Respiratory
Physician

Guy's and St Thomas' Severe
Asthma Service

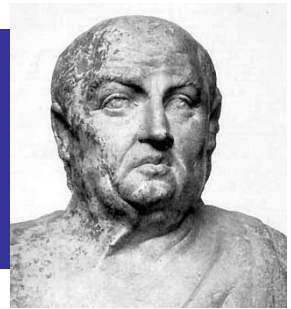
Asthma has a long history

The term 'asthma' first appeared in Homer's epic poem *The Iliad* composed in the 7th or 8th century BC

The Trojan leader Hector 'lying on the plain, while about him sat his comrades , and he was gasping with painful breath [*asthmati*]...'



The asthma attack



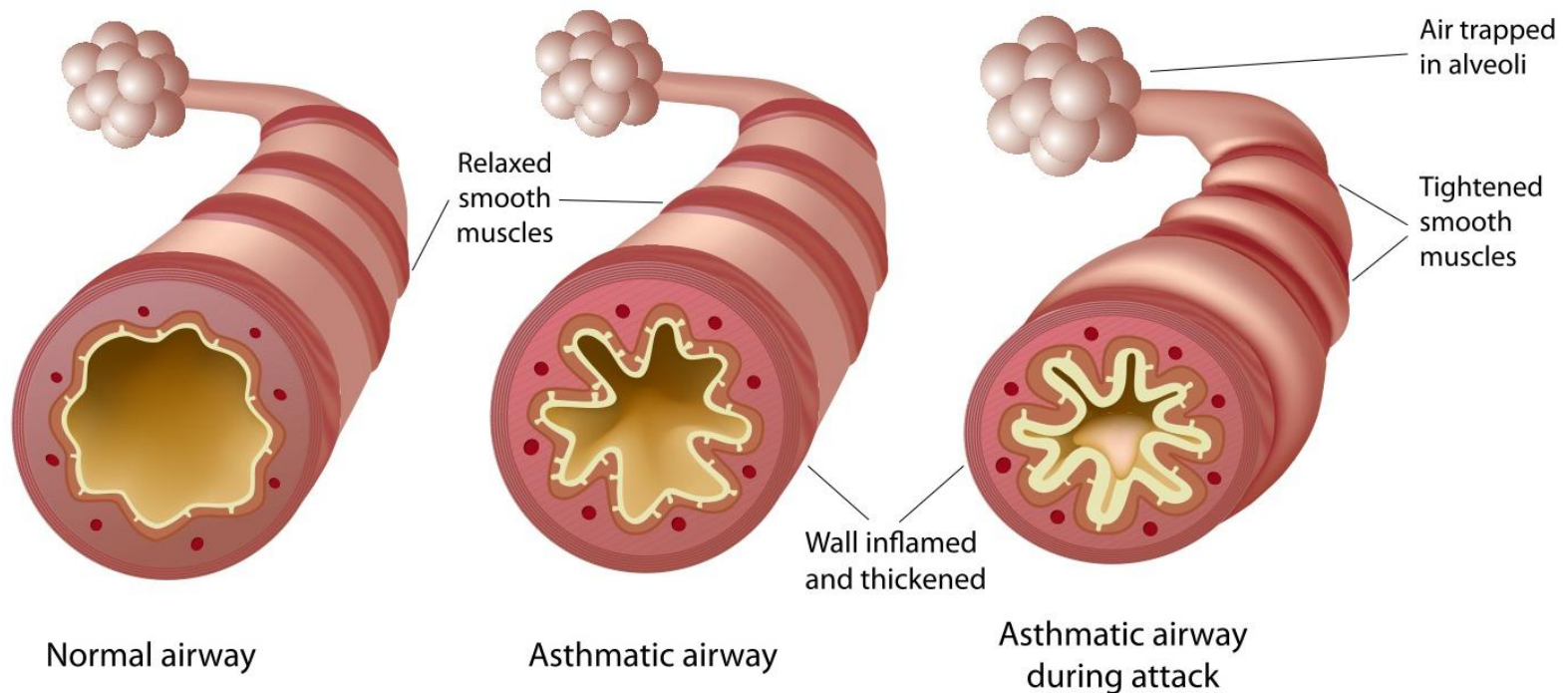
‘It’s onslaught is of very brief duration – like a squall, it is generally over within the hour. One could hardly, after all, expect anyone to keep drawing his last breath for long, could one? I have suffered every kind of unpleasant or dangerous physical complaint, but none worse than this. Not surprising, for anything else is just an illness, while this is gasping out your life-breath.’

Seneca, Epistulae Morales ad Lucilium, c. AD 62-5



Asthma is a long-term inflammatory disorder of the airways

Asthma is characterised by breathlessness, chest tightness, wheezing, cough, sputum production, airflow obstruction, and hyper-responsiveness of the airways



TRIGGERING FACTORS

Inflammation



Constriction



Others



Scale of the problem

- 5.4 million people suffer with asthma in the UK
- Asthma attacks ('exacerbations') lead to
 - 67,000 A&E visits
 - 50,000 hospital admissions
 - 40% are children under the age of 16

Economic Burden of Asthma

Direct Costs
£1 billion

Indirect Costs
£6 billion

The most severe 5% of patients invoke 50% of total health care burden for asthma

Hospital admissions
Diagnostics
Medication (£800m)

School days lost
Travelling
Disability costs

Cost-enhancing factors

Asthma severity
Poor asthma control
Comorbidity



TRIGGERING FACTORS

Inflammation



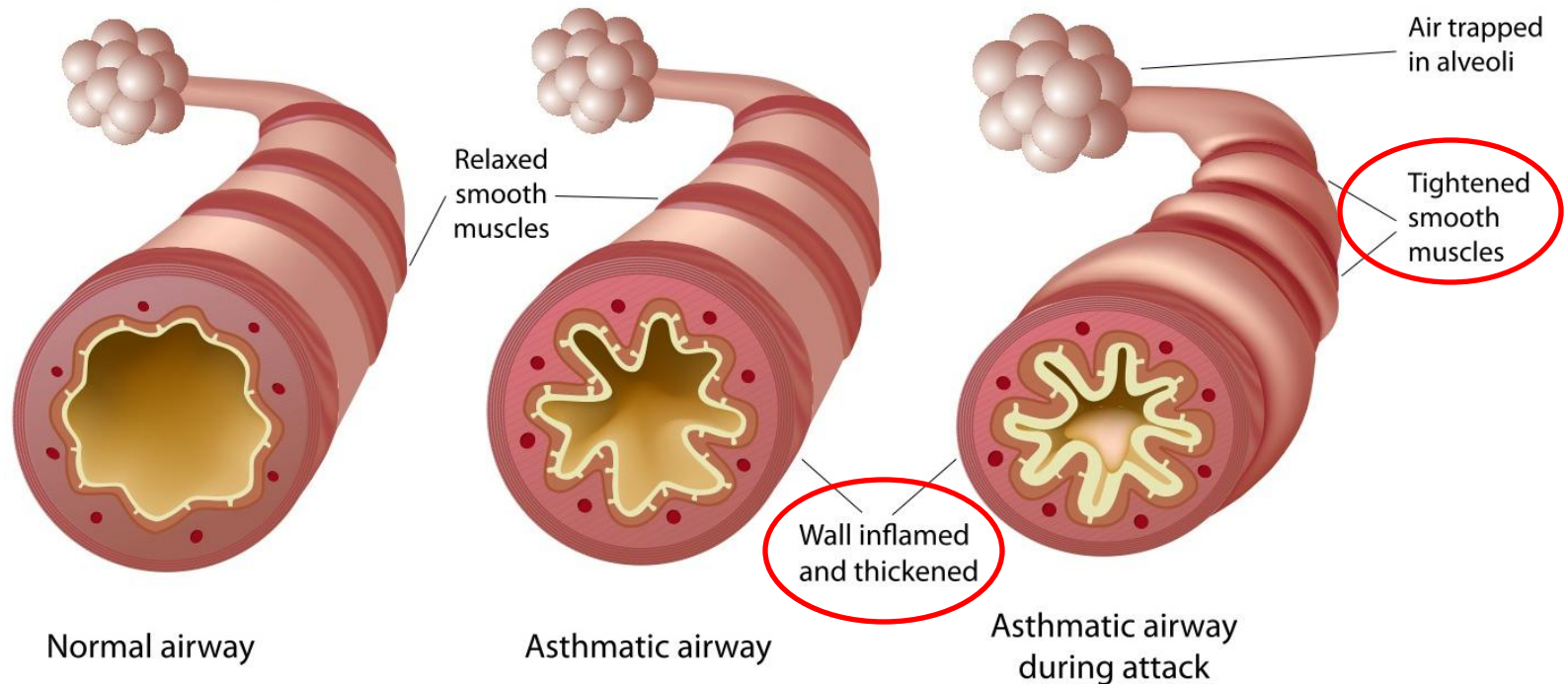
Constriction



Others



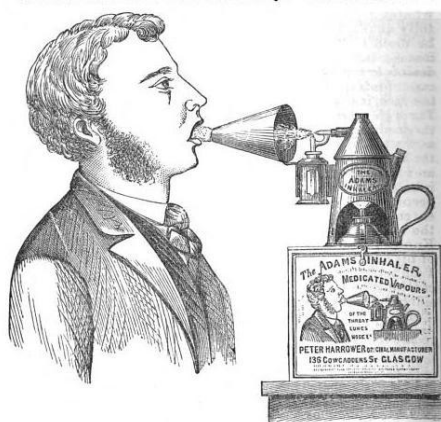
There is no cure for asthma, the aim of treatment is to control symptoms and prevent asthma attacks



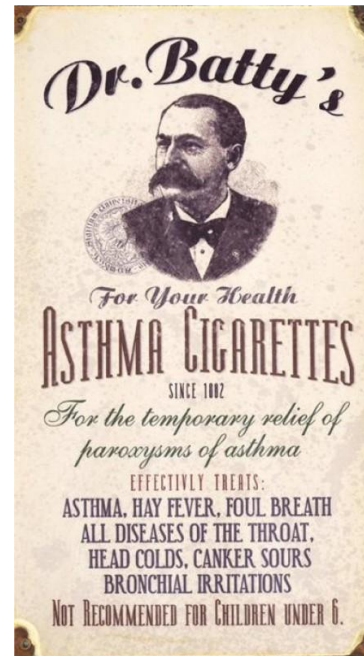
Asthma Therapies Over the Ages

12th
Century
*'Pickled fish,
lungs of foxes,
fat of rabbits'*

1858



1882

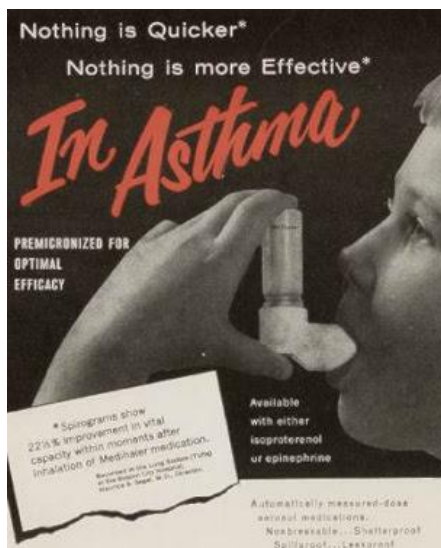


1930



The Evolution of the Asthma Inhaler

1957



1980



2 puffs
every 3-4
hours

1995



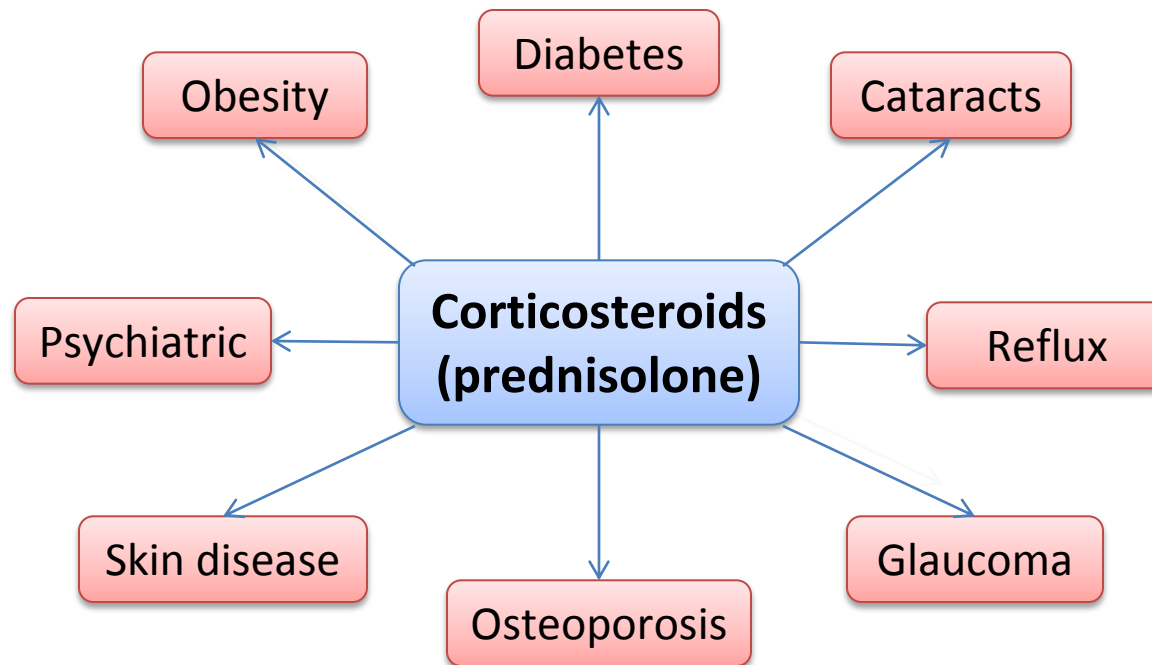
2 puffs
every 12
hours

2015



1 puff
every 24
hours

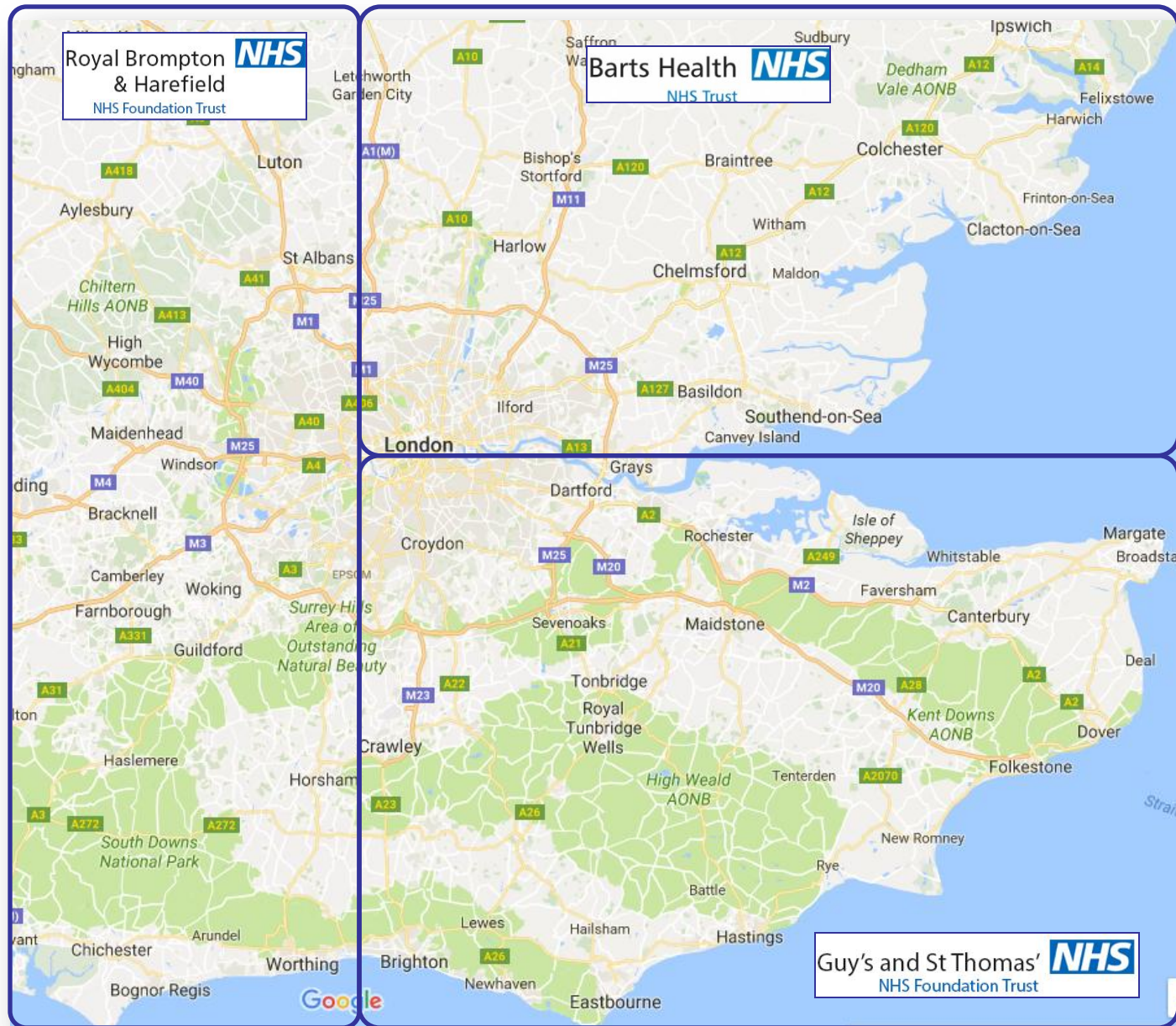
Corticosteroids – excellent at controlling asthma, but at an expense...



The Era of Personalised Medicine for Asthma

- Recent asthma research has led to an improved understanding of the disease
 - New therapies target very specific parts of the inflammatory pathway
 - Reduce asthma attacks by up to 70%
 - No steroid-related side effects
 - Very expensive: ~£20,000 per patient per year
 - Only work if the correct patients are selected
 - To avoid inappropriate prescribing and spiralling NHS costs only specialist severe asthma units are permitted by NHSE to prescribe these new therapies

NHS England Severe Asthma Centres



GSTT Severe Asthma Centre

- Receive referrals from GP's and respiratory consultants from across South London, Kent and E. Sussex
- Asthma team: 3 consultants, 2 specialist asthma nurses, pharmacist, respiratory physiotherapist, health psychologist
- Fully investigate patients to understand why their asthma is so severe / difficult to control
- ~250 clinic appointments / month
- ~300 emergency adult asthma admissions / year
- Active asthma research programme

MRC & Asthma UK Centre in Allergic Mechanisms of Asthma



Thank you for your attention



According to a recent Nationwide survey:

MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE

DOCTORS in every branch of medicine—111,897
in all—were queried in this nationwide study
of cigarette preference. Their leading research se-
gements made the survey. The gist of the query
was—What cigarette do you smoke, Doctor?

The brand named best was Camel!

The rich, full taste and cool softness of Camel's
super blend of choice tobaccos seem to have the
same appeal to the smoking tastes of doctors as to
millions of other smokers. If you are a Camel
smoker, this preference among doctors will hardly
surprise you. If you're not—well, try Camels now.

Camels Costlier Tobaccos

Your "T-Zone" Will Tell You...

T for Taste...
T for Throat...
That's your
proving ground
for any cigarette.
See if Camels
don't suit your
"T-Zone" in a "T."

