Side effect
Self management

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Biological & Exercise Scientist Coventry University
Lifestyle related illnesses

- £1 billion Statins
- £774m Anti-BP drugs
- £800m Diabetic drugs
- £78m Laxatives
- £800m Anti-depressant
- £660m Anti-indigestion
- 4.5 billion Fracture & drugs

2017 - £6 billion / year
2050 - £55 billion / year
Inflammation
- Obesity
- Process sugar
- Smoking
- Inflammatory foods

Anti-inflammation
- Exercise
- Nuts & legumes
- Healthy bacteria
- Polyphenols

Fatigue
- Irritable bowel
- Low mood
- Depression
- Cancer
- Cancer growth
- Arthritis
- Diabetes
- Cholesterol
- Heart disease
- Heart disease
- Dementia
- Parkinson’s
Direct: 
- Reduce inflammation
- Improve immunity
- Anti-oxidant
- Reduce excess insulin
- Epigenetic expression
- Reduce testosterone / oestrogen

Indirect: 
- Weight control
- Improve mood
- Increase Vitamin D

3 hrs/wk 
- Lower incidence
- Slower progression
- 30% lower relapse
Lifestyle & radiotherapy effects

440 men with prostate cancer treated over 10 years

<table>
<thead>
<tr>
<th></th>
<th>Exercise</th>
<th>Smokers</th>
<th>Age</th>
<th>BMI</th>
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<tbody>
<tr>
<td>Rectal toxicity</td>
<td>✓</td>
<td>✓</td>
<td>NS</td>
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<tr>
<td>Incontinence</td>
<td>✓</td>
<td>✓</td>
<td>NS</td>
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<tr>
<td>Erectile function</td>
<td>✓</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
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Lifestyle & late pelvic effect after pelvic rxt. Thomas, Jervoise, Maher Clin Onco (2013) 25;4
Prehabilitation

UK consensus on exercise guided prehabilitation

- Reduce thrombotic events
- Reduce time in hospital
- Reduce readmission rates

- Research questions:
  - Reduce relapse
  - Improve survival
1. Systemic review 2015:
   - 59 RCT 4500 patients
   - No clinical benefit

2. Meta-analysis 2010:
   - 15 RCT 8151 patients
   - Increase cardiovascular risk

Vicky Tai BMJ 2015;351:h4183
Bollard et al BMJ 2010;341:c3691
1. Hot flushes 62%
2. Arthralgia 55%
3. Fatigue 42%
4. Mood 29%
5. Weight gain 28%
6. Vag dryness 10%
Self help strategies to help fight fatigue.

Treat medical causes
- Drugs
- Anaemia
- Thyroid & organ failure

Graduated Exercise Therapy (GET)
- Over several weeks
- Avoid
  - Unaccustomed exercise
  - Over strenuous exercise
  - Exercise exceeding anaerobic threshold

Reduce process sugar
- High calories
- Less satiating
- Hunger and fatigue
- Eat more
- Weight gain
Does adding sugar to tea cause cancer?

- Prospective cohort analysis of 155,000 men & women between 1993 - 2001
- Lifestyle and nutritional questionnaire
- Diagnosis of cancer recorded
How to reduce glycaemic index
The Ultimate Healthy Breakfast Bowl
Controlling weight

13 hours overnight fasting:
- Lower levels of glycated Hb
- Lowers inflammatory makers
- 36% lower risk of recurrence

Walk before breakfast:
- Extended fasting
- Uses energy

Monoclonal antibodies (Ipilimumab, nivolumab)
- Better response rates
  - Better gut flora
  - Metastatic melanoma

CRUK 2017
Main research funding category
ASCO 2018
Major priority for research
Polyphenols & gut bacteria

- Polyphenols increase gut health
- Probiotics improve polyphenol absorption
- Reduce oxidative stress
- Reduce chronic inflammation
- Improve immunity
A double blind RCT of a polyphenol and probiotic supplement to reduce arthritis and improve exercise performance

210 participants

110 placebo
+/- probiotic

Arthralgia scores
Exercise levels
Hip / waist ratio
Depression
Fatigue
BMI
Hot flushes

110 pomi-t
+/- probiotic

Arthralgia scores
Exercise Levels
Hip / waste ratio
Depression
Fatigue
BMI
Hot flushes
Phytochemicals:
• Anti-inflammatory
• Analgesic
• Anti-oxidant
• Anti-microbial
• Moisturising
• DNA repair
A double-blind, randomised trial of a polyphenolic-rich nail bed balm for chemotherapy-induced onycholysis: the UK polybalm study

Robert Thomas¹,²,⁵ · Madeleine Williams² · Michael Cauchi³ · Saul Berkovitz⁴ · Sarah A. Smith¹

60 people on chemo

30 placebo

End of chemo onycholysis score

60% worse

30 Polybalm

End of chemo onycholysis score

3% better

T-test p<0.000001

Polybalm.com
Conclusion

Lifestyle strategies can help ongoing toxicities and reduce risks

Started as early as possible

More clarity of education:

- Exercise
- Processed sugar
- Boosting polyphenol intake
- Boosting gut health

More research is needed
More information

Lifestyle and Cancer
The Facts
Learn how to live stronger for longer
Professor Robert Thomas
Completely revised 2011 edition

Newsletter

cancernet.co.uk

CANCERNETUK

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