

**RISK FACTOR OF CHRONIC BRONCHITIS  
IN AN INDUSTRIAL WORKPLACE IN ANNABA**  
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**PROBLEMATIC:**

The factors of risk of chronic bronchitis (C.B.) were the subject of many work during these 30 last years. After the nicotinic one of other factors were put forward: air, domestic pollution and professional factors in agricultural, mining, or industrial area. The role of industrial pollution becomes better established in Algeria and in the world

**description of the area study :**

Annaba is an industrial city situated in the east of Algeria which faced the mediterranean has a population of 550.000 inhabitants . iron and steel industry and chemical oil factories where constructed in the east of the town .operation we started in 1990 and did no employ suitable measures for desulfurization until these four last years .

Accordingly from 1970, it seems that respiratory diseases and particularly chronic bronchitis began to genesis most frequently

**MATERIAL AND METHOD**

Subjects and tools of the study:

**Choice of the population study :** for the exposed population, the iron and steel industry (S.I.D.E.R ):17.400 , and the factory of fattened phosphates and nitrogen (A.S.M.I.D.A.L.) :2.300 constitute a population of large study, and regrouping worker s providing from different regions of north- east of countries, in a limit geographic space. A sample of 400 persons all of male sex and of age up to 20 years is draft au sort according to a double blind random study among the workers of two factories , 200 at S.I.D.E.R. level and 200 at A.S.M.I.D.A.L. level.

The population of comparison of this study is performed of 200 persons recruited in four sale's points situated in the Annaba town.

**method of study :**

this is a study of cross-sectional type and of limited duration to one year (1990-1991) . the version of the ATS-DLD 1978 questionnaire is expressed in dialectal Arab; that questionnaire include several rubrics codified by items on :

- the civilian status
  - the occupational antecedents
  - the respiratory antecedents the pollution status of lieu
  - and the respiratory symptoms actual .
- computerized lists among  
people working and living around these factories .  
case control in a non polluted area

**OBJECTIVE**

To make out the impact of exposure to the industrial pollution in the genesis of the C.B. In polluted area

**RESULTS**

	C.B.	Non ill patients
Age	39,90 ± 9,20	37,49 ± 8,36

**Repartition of Smokers, non-Smokers et ex-Smokers within sains et sujets malades subjects and within exposed and non exposed:**

COUGH	EXPOSED				NOT-EXPOSED			
	Smokers		Non-Smokers		Smokers		Non Smokers	
	N	%	N	%	N	%	N	%
Healthy	295	92,7	102	92,7	157	97.5	39	97,5
C.B.	23	7,3	9	7,3	4	2,5	1	2,5
TOTAL	318		111				161	40

N: studied effective

**COUGH**

	EXPOSED	Not EXPOSED	Z	p
	NB	NB		
Duration current work	25/339	4/140	3.999	S
Sensitivity to harmful	24/351	3/139	2.61	"
Antecedents	34/353	2/139	4.39	"
Duration former work	24/443	3/142	2.06	"
dust	23/360	3/138	2.47	"
Work in polluted area	24/351	3/139	2.52	"
Past smokers	23/349	3/342	2.49	"
sensitivity to cigarette	22/332	2/1431	3.11	"
Pack/year	22/340	1/134	3.75	"
Level of school	24/354	3/131	2.40	"
Pollution at home	24/349	3/142	2.62	"
Sensitivity to smell	23/350	4/139	1.91	"
Number of children	21/424	2/128	2.29	"
Home environment	22/337	4/138	1.83	NS
Morning Cough	4/430	2/107	0.99	"

**PHLEGM**

	EXPOSED				NOT-EXPOSED			
	Smokers		Non-Smokers		Smokers		Non-Smokers	
	N	%	N	%	N	%	N	%
Healthy	303	93.5	101	94.4	141	97,2	38	97.4
C.B.	21	6,5	6	5,6	4	2,8	1	2.6
TOTAL	324		107		145		39	

N: studied effective

The % of C.B. is higher in the smokers exposed than those not-exposed and the non smokers .

**PHLEGM**

EXPOSED	Not EXPOSED.	Z	P
N	N		

Pollution at home	33/399	5/161	2.66	S
Pack/year	21/325	0/130	4.75	“
Former smokers	21/315	4/145	2.00	“
Sensitivity to smoke	20/338	2/144	2.81	“
Number of children	23/315	5/133	0.41	NS
Home	12/323	4/142	0.52	“
Sensitivity to harmful	18/350	3/142	1.80	“ Level of school
15/342      4/133	0.75	“		
Antecedents	17/325	4/144	0.33	“ Morning phlegm
20/383      4/145	1.45	“		
Work in polluted area	20/400	5/146	0.82	“
Duration of current work	15/334	3/138	1.46	“
Duration of former work	17/323	4/130	1.04	“
Dust Sensitivity	20/341	5/158	1.43	“
Smell	6/136	4/144	0.72	

Legend: **Z**: reduced variation      **S**: significant      **NS**: not significant